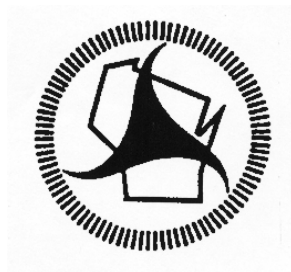


**WISCONSIN WINTER RIDE
SURVEY REPORT**



**Survey conducted by
Wisconsin Survey Research Laboratory**

**Responses analyzed by
Marquette University**



**September 1997
Revised 2001**

EXECUTIVE SUMMARY

The Wisconsin Winter Ride Survey was designed to determine the extent to which drivers were tolerant of the rougher ride of pavements on rural two-lane highways in the winter. Survey objectives, as such, were centered around this primary question of winter ride tolerance. A telephone survey was conducted by the Wisconsin Survey Research Laboratory (WSRL), which added questions to its quarterly Wisconsin Opinion Poll for the data collection period of January 15 to March 15, 1997. A similar survey focusing only on the topic of winter driving on rural highways was conducted in Minnesota during the same period. Random digit dial samples were drawn for both states according to accepted sampling procedure. The survey data set provided by WSRL included 417 respondents.

Analysis of the survey responses, performed by Marquette University, provided insights into the sample composition and relationships between respondents' perception/tolerance and their driving and demographic characteristics. In terms of demographics, 54 percent of the respondents were male, with two-thirds of the respondents aged 35 or over, evenly split between those 35-49 and those 50 and over. Lifetime residents accounted for 40 percent of the respondents. Almost one-fourth had a college degree or beyond, and 30 percent reported household incomes of \$50,000 or more. Approximately 60 percent drove cars, as opposed to minivans, trucks, etc., and very few of the respondents rated the roughness of their vehicle's ride as less than average.

With regard to respondents' perceptions and tolerance, almost 40 percent had noticed changes in the pavement's ride quality since the start of winter and could link their perceptions of change to specific stretches of highway. When the respondents who noticed were asked about their tolerance of the rougher ride in winter, over one-third (37%) judged the ride to be "too rough"; three-fourths indicated they were more tolerant of this rough ride in winter than they would be the rest of the year. Respondents who noticed changes in the pavement's ride were asked for a reason they would tolerate a rougher ride in winter. For the 129 drivers who responded, the two major reasons given were "freezing weather changes the road" and "nothing I can do about it." Finally, a revealing finding was that only 39 motorists (9% of total respondents) reported avoiding specific stretches of highway due to intolerable winter ride.

Relationships among the survey variables were determined by means of crosstabulations, which essentially are matrices resulting from cross-tabulating the response frequencies of one survey question against those of another. In this case, the perception/tolerance responses were cross-tabulated against the driving and demographic characteristics of the respondents. The cross tabs yielded insights in the context of the survey objectives, e.g., which types of drivers were more tolerant of a rough ride in winter? Although the crosstabs are discussed in Section IV of the report, Table 1 provided at the end of this summary presents a quick overview of key relationships among the survey variables.

Conclusions derived from the Wisconsin Winter Ride Survey included the following. Overall, Wisconsin respondents were predominately tolerant of the pavement's potentially rougher ride in winter. Three-fourths of the 173 respondents who had noticed a change in the pavement indicated that they were more tolerant of the rough ride in winter than they would be the rest of the year. The extent to which motorists noticed changes in the pavement was influenced by the driving and vehicle characteristics. Respondents who drove more frequently on rural two-lane highways and those driving trucks, full-size vans or sport utility vehicles were more

likely to notice changes. The latter finding suggests that differences in suspension and ride entered in for respondents driving cars versus those driving trucks. It follows, therefore, that noticing pavement changes generally increased as ratings of the vehicle's ride quality declined.

Tolerance of the winter ride was influenced by several driving and demographic characteristics. Respondents who drove the least and those 65 and over in age were more likely to view the winter ride as tolerable. Those motorists who gave poorer ratings to their vehicle's ride were less tolerant than others were. In terms of demographics, tolerance declined as household income increased. Overall, females were slightly more tolerant than were males.

Finally, the analysis offered a more complete picture of those 39 respondents who avoided specific stretches of highway because of an intolerable ride. Drivers of minivans and trucks, as well as those who drove more frequently, were somewhat more likely to avoid specific stretches. Avoidance generally increased as ratings of vehicle ride declined but was virtually nonexistent for college graduates or post graduates. In terms of gender, a majority of the drivers who avoided specific stretches were male.

Overall, the Wisconsin Winter Ride Survey findings were reasonably consistent. A majority of the Wisconsin motorists who had noticed a change in the pavement's ride quality since the start of winter were more tolerant of the rougher ride than they would be the rest of the year. Based on the analysis, it was evident that the perception and tolerance of the survey respondents were influenced by particular driving and demographic characteristics.

These informal tolerances will be compared to thresholds developed later in the project.

TABLE 1
RELATIONSHIPS AMONG SURVEY VARIABLES

Perception/Tolerance

Related Variables

Noticed changes in pavement (Q36)

Most also noticed specific stretches of highway (Q37)

Respondents who drove more frequently- 7 days/wk. (Q35)

Respondents who drove trucks, full-size vans, or sport utility vehicles (Q45)

Noticing increased through age 50 but declined after 65 (Q48)

Noticing and income increased simultaneously (Q50)

Noticed pavement changes on specific stretches of highway (Q37)

Respondents who drove more frequently- 7 days/wk. (Q35)

Noticing generally increased as ratings of the vehicle's ride declined (Q46)

Somewhat more likely for drivers in the 35 to 50 age range (Q48)

Noticing generally declined with increasing levels of education (Q49)

Opinion on way road rides (Q40)

Respondents who drove the least were more likely to find the winter ride tolerable (Q35)

Motorists 65 and over in age were more likely to view the winter ride as tolerable (Q48)

Drivers judging the winter ride to be "too rough" were more likely to have noticed pavement changes (Q36)

Tolerance of rough ride in winter (Q41)

Tolerance in line with tolerance of ride in Q40

Respondents who did not avoid specific highway stretches (Q42) were more tolerant of the rough ride in winter

Motorists who drove 7 days/wk. (Q35) were somewhat less tolerant than other motorists

Of the educational levels (Q49), college graduates were more tolerant

Tolerance declined as household income increased (Q50)

Females were slightly more tolerant than were males (Q52)

Avoidance of specific stretches due to intolerable ride (Q42)

Respondents who avoided specific stretches were less tolerant of rough ride in winter (Q40)

Avoidance slightly more likely for respondents who drove 7 days/wk. (Q35)

Drivers of minivans and trucks (Q45) were somewhat more likely to avoid stretches

Avoidance generally increased as ratings of vehicle ride declined (Q46)

Avoidance declined as the age of respondents increased (Q48)

Avoidance virtually nonexistent for college or post graduates (Q49)

The majority of respondents who avoided specific stretches were male (Q52)

I. SURVEY OBJECTIVES

The aim of this survey was to target winter ride conditions in Wisconsin to gain insights into the threshold of acceptability for ride. The primary question was: Are motorists more tolerant of a rough ride in winter? The goal was to find an informal tolerance level of winter pavements to compare with later threshold levels derived from broader survey data (the state-wide survey).

Objectives for the survey, therefore, were centered around the primary question of winter ride tolerance:

- 1) to determine whether motorists were more tolerant of a rough ride in winter, or if they avoid it.
- 2) as a lead-in to this central question, to determine whether motorists had noticed changes in the pavement's ride since the beginning of winter.
- 3) to identify two-lane rural state highways, and specific stretches of those highways, where motorists noticed changes in the pavement's ride.
- 4) to discover reasons motorists would tolerate a rougher ride in winter.
- 5) to collect data on relevant vehicle and driving characteristics.
- 6) to obtain demographic data (e.g., age, sex, etc.) relevant to analysis and interpretation of the survey responses.

II. SURVEY METHODOLOGY

The project proposal submitted to the Wisconsin Department of Transportation (WisDOT) called for the Wisconsin Survey Research laboratory (WSRL) to use its Wisconsin Opinion Poll to determine "winter intolerable rides" by adding items totaling approximately 3 minutes to its questions to respondents around the state of Wisconsin. Since this is a quarterly survey, the data collection period of January 15 through March 15, 1997 was selected to focus on winter ride experience. A similar survey on winter driving, therefore, was conducted in Minnesota during the same months.

The Minnesota and Wisconsin surveys used similar sample designs. (This sample description was provided by the Wisconsin Survey Research Laboratory). The random digit dial samples for both states were prepared in the following way. For each state a list of all the area codes and exchange prefixes containing residential numbers was compiled. Each area code and prefix combination was then split into blocks of 1000 potential phone numbers. These blocks were grouped on the basis of the assessed likelihood of the block to contain working residential phone numbers. The likelihood of the block to contain working residential phone numbers was based on an examination of the white-page listings. The white page listings were obtained from CD Rom phone disks.

Each group of blocks had a different sampling rate. Groups of blocks with a high likelihood of containing working residential phone numbers were sampled at a higher rate than

groups of blocks with a low likelihood of containing working residential phone numbers. As a result more sample phone numbers were selected from blocks with a high likelihood of containing working residential phone numbers. To compensate for these varying sample selection rates a weighted data set was used during data analysis. These weights were included in the data sets at the record level, (i.e., each record contains a record weight). The record weight is 100 times the inverse of the sample selection rate for the record divided by the study's response rate. The value of 100 is used to compensate for the fact that response rate is expressed as a percentage and not a proportion.

Telephone interviewers identified themselves as calling about "an on-going research project sponsored by the University of Wisconsin-Extension". They indicated that they were contacting households throughout the state concerning issues affecting residents of Wisconsin. This is part of the Wisconsin Public Opinion Survey conducted on a quarterly basis. Travel was mentioned as one of the issues together with opinions on outdoor recreation in Wisconsin. The survey codebook of questions specifically about winter driving in Wisconsin is provided in Appendix A.

III. RESULTS

In this section patterns of response to the Wisconsin Winter Ride Survey are examined. The Statistical Package for the Social Sciences (SPSS) was employed for response reporting and data analysis. The survey data set prepared by Wisconsin Survey Research Laboratory included 417 respondents, weighted to 433 cases, as per the preceding WSRL sampling description.

For ease of interpretation, the discussion of the survey responses is divided into four sections. Section A examines the descriptive characteristics of the survey respondents, i.e., respondent demographics. Driving and vehicle characteristics are covered in Section B. Section C addresses the responses pertaining to pavement and ride conditions. Responses to the open-ended questions, namely 39, 41a, and 44, regarding specific stretches of highway, are discussed in Section D. For detailed review, the verbatim responses are included in Appendix B. It should be noted that numbering of survey questions begins with 35 and ends with 53, since this was part of a broader survey..

A. Respondent Demographics

Sex and Age of Respondents

With reference to the sex of the survey respondents, frequencies for question 52 reveal that 54 percent of the respondents were male whereas 46 percent were female. In terms of age, the survey respondents were well-dispersed across age categories. Analysis of question (Q) 52 yielded the following age composition:

- 1) respondents 19 - 20 years = 2.6%
- 2) 21 - 34 yrs. = 24.9%
- 3) 35 - 49 yrs. = 36.0%
- 4) 50 - 64 yrs. = 19.0%
- 5) 65 and over = 17.4%

As such, over two-thirds of the respondents were 35 or over with almost an even split

between the 35-49 age group and those 50 and over.

Education and Income

In terms of educational level, Q49, the categories ranged from eighth grade to post graduate. Approximately one-third had completed high school, 22.9 percent had obtained a college degree or beyond, and 32.4 percent had attended college or a technical school. In light of the natural connection between education and income, with less than one-fourth of the respondents being college graduates, income could be expected to taper off in numbers of respondents at the high end. This was the case, with Q50 yielding the following frequencies for the 399 respondents who answered the question:

\$ 1,000 to \$ 9,999	5.8%
10,000 to 19,999	8.0
20,000 to 29,999	16.3
30,000 to 39,999	15.3
40,000 to 49,999	14.0
50,000 to 69,999	17.1
70,000 to 99,999	9.8
100,000 and over	3.2

To capture any further response from those prompted by income categories, Q51 was included as a follow-up. Since this question garnered only 73 responses, the focus for income analysis is Q50. Given the challenge of soliciting responses on household income, this research effort proved effective, with 92.1 percent of the respondents answering the primary income question.

Residence Frequencies

Respondents were asked how many years they had lived in Wisconsin. As the responses to Q47 indicate, many have been Wisconsin residents for a considerable number of years. Lifetime residents accounted for 40 percent of the respondents, with only 13.2 percent living in Wisconsin less than 10 years.

In terms of the county of residence, responses to Q53 indicate a good dispersion. Counties with 20 or more respondents included: Brown (20), Dane (40), Milwaukee (65), and Waukesha (27). Dane County includes the greater Madison area.

B. Driving and Vehicle Characteristics

Survey motorists were asked several questions about their driving and their vehicles. To gauge driving frequency, respondents were asked how often they drove on rural two-lane highways in Wisconsin. Apart from the 37 motorists who did not drive in winter, there was a wide range of driving frequencies. Almost 40 percent (39.2%) drove from 1-6 days per week, whereas 16.9 percent reported driving rural two-lane highways 7 days per week. Of the remaining respondents, 19.8 percent drove from 1-5 days per month. In sum, over half (57.1%) of the respondents drove on rural two-lane highways at least one day per week.

Since drivers' perceptions of pavement conditions can be directly related to the type of

vehicle they drive, several questions addressed this dimension. Q45 identified the type of vehicle normally driven by the respondents. The responses indicated that 60.3 percent of the motorists drove cars. With regard to vans, 11.2 percent drove minivans whereas 2 percent drove full-size vans. Sport utility vehicles accounted for less than 2 percent of the responses; trucks were driven by one-fourth of the respondents who answered this question. Of the 216 respondents who drove cars, their distribution across car size categories (Q45a) was: 1) compact = 26.9%, 2) mid-size = 48.1%, and 3) full-size = 23.1%.

Respondents were subsequently asked in Q46 to rate the roughness of the ride of their vehicle. As the frequencies reveal, few of the respondents (6.7%) reported less than an average ride. In contrast, 60.8% evaluated the ride of their vehicles as being “good” or “very good”. Approximately one-third (32.5%) of the motorists judged the ride of their vehicle to be average.

C. Pavement and Ride Perceptions and Tolerances

This section addresses results of the questions designed to tap drivers’ perceptions and tolerances of pavement conditions, the primary thrust of the winter ride survey. Early in the survey respondents were asked in Q36 if they had noticed any changes in the pavement on the rural two-lane highways they drove since the onset of winter. An added statement focused their attention on bare pavement. Responses indicated that almost half (47.2%) of the 358 drivers who answered Q36 had, in fact, noticed changes. As a follow-up, Q37 asked whether the pavement’s roughness or ride had changed on specific stretches of these highways. Of the 353 motorists who answered, half (49%) responded in the affirmative. Discussion of open-ended questions 38 and 39, which involved specific highway identification, will follow in Section D.

The next series of Questions, Q40-44, addressed the dimension of tolerance. Respondents were asked in Q40 about their tolerance of the winter ride on the highway they had designated. Of the 173 motorists who responded, over one-third (37.0%) judged the ride to be “too rough”, whereas the remaining respondents (61.8%) evaluated the ride as “tolerable”. Question 41 subsequently probed their tolerance of this rough ride in winter versus the rest of the year. Approximately three-fourths (74.6%) of those responding reported being more tolerant of the rough ride in winter; 23.7% were not more tolerant. Responses to Q41a, which involved the content analysis of open-ended answers, will be discussed in Section D. Finally, in questions 42-44, drivers were asked about specific stretches of highway they avoided because of an intolerable ride in winter. Although open-ended answers to questions 43 and 44 will be reviewed in Section D, responses to Q42 indicate the extent of highway avoidance. Of the 358 drivers responding to this question, only 39 (9%) reported avoiding specific stretches because of intolerable winter ride on the pavement. Additional analysis in subsequent sections will shed further light on this issue of avoidance of specific highways.

D. Responses to Open-Ended Questions

As previously indicated, the Wisconsin Winter Ride Survey was designed to provide WisDOT professionals with not only perception and tolerance data, but also verbatim responses to open-ended questions which facilitate identification of the rural two-lane highways driven by the respondents, as well as determination of specific stretches of highway deemed intolerable in the winter. While this section highlights selected results, professionals are referred to Appendix B for detailed verbatim responses to Questions 38, 39, 41a and 44. In Q38 respondents were asked to identify the rural two-lane highway on which they had noticed changes in the ride since the

start of winter. Specific highways were mentioned by 169 respondents. Wisconsin highways identified by six or more respondents included highways 10, 12, 13, 31, 41 and 51. Specific stretches of the highways identified were then pinpointed in Q39. Stretches for the highways identified by six or more respondents, i.e., highways 10, 12, 13, 31, 41 and 51, are listed in Appendix C.

Respondents who had noticed changes in the pavement were asked in Q41a for a reason that they would tolerate a rough ride in winter. Although specific verbatim responses are listed in Appendix B, the answers were also tabulated according to the categories arrayed in Q41a. For the 129 motorists who answered this question, the four categories accounting for 85.3 percent of the responses were:

Freezing weather changes the road	39.5%
Nothing I can do about it	23.3
There is snow on the ground	13.2
Difficult to maintain in winter	9.3

Although most of the motorists answering Q41a gave only one reason, 9 drivers offered a second reason. These provided no additional insights. Overall, the primary reason Wisconsin drivers surveyed would tolerate a rougher ride in winter was that they recognized that freezing weather changes the road, i.e., contributing to heaves and cracks in the pavement.

As previously noted, 39 motorists indicated in response to Q42 that they avoided specific stretches of highway because of an intolerable ride in winter. Given the opportunity in questions 43 and 44 to identify the specific highway stretches, 34 of these respondents did so. Highways avoided by three or more respondents included highways 12, 13 and 41. The specific stretches of highway for Q44 are listed in Appendix B.

IV. ANALYSIS

Given the sample size and format of the response data, the most efficient type of analysis to reveal key relationships is crosstabulation. Crosstabs basically are matrices resulting from crosstabulating the response frequencies of one question against those of another. The computer software which generated the response frequencies, namely SPSS, was also used to run the crosstabs. Statistical testing of relationships between response variables was precluded because minimal conditions (e.g., expected frequencies across cells) could not be met.

For the analysis to generate the desired findings, survey questions were divided into two basic categories. First were the perception/tolerance questions: questions 36, 37, 40, 41 and 42 (see Appendix A). The second category comprised the respondent “descriptors”, i.e., driving and demographic characteristics: questions 35, 45, 45a, 46, 47, 48, 49, 50, 51 and 52. Questions 35, 45, 45a, and 46 were driving and vehicle characteristics. Since the term “crosstab” will be used repeatedly in this section, it has been abbreviated to “Xtab”. For Xtab purposes, the relevant demographic descriptors were deemed to be years lived in Wisconsin (Q47), age (Q48), education (Q49), income (Q50) and sex (Q52). Responses to questions 47-50 and 52 were distributed across all coded values; e.g., for age in Q48 (year of birth), responses ranged from coded values 905 (the year 1905) to 978 (1978). Since this response format did not lend itself to Xtab analysis, the responses for these questions were consolidated into cumulative categories. The same procedure was applied to Q35, driving frequency. This consolidation, therefore, yielded response

data amenable to Xtab analysis.

The Xtab process of running the perception/tolerance question responses against each other and then against the respondent descriptors (e.g., demographics) yielded a substantial set of computer output. It should be emphasized that the Xtab analysis was performed to determine relationships among the response data which would provide insights in the context of the survey objectives. In short, which types of drivers were more tolerant of a rough ride in winter? At the same time, which motorists noticed changes in the pavement's ride and avoided specific stretches of highway? Also, how did driving and vehicle characteristics come into play? As a result, the computer output was culled to the Xtabs which best provided the desired insights.

Q36 (Noticed Changes in Pavement) Xtabs

The initial perception question, i.e., noticed changes in the pavement since the start of winter (Q35), was followed by a query as to whether such changes had been noticed on specific stretches of highway (Q37). How were the responses in Q36 related to those in Q37? The Xtab of Q36 x Q37 provided the answer. Approximately 83 percent of the respondents who noticed changes in the pavement (Q36) also noticed specific highway stretches where the pavement's ride had changed (Q37). Likewise, if they responded "no" to Q36, they were more likely to answer "no" to Q37, as was true for 81.5 percent of the respondents.

With regard to driving and vehicle characteristics, Xtabs revealed links to Q36. The frequency of driving on rural two-lane highways (Q35), when run against Q36, was a case in point. Respondents who drove 7 days per week (coded 107) were more likely ("yes" for 58.9% of them) to have noticed changes in the pavement since the start of winter (Q36 x Q35). In terms of kinds of vehicles (Q36 x Q45), respondents who drove trucks, full-size vans or sport utility vehicles were more likely to have noticed pavement changes than those who drove minivans or cars. Although vehicle ride ratings (Q46) did not offer a consistent pattern in Xtab analysis, it is likely that differences in suspension and ride entered in for cars versus trucks.

Respondent demographics were a factor to some extent. Age, Q36 x Q48, revealed interesting dynamics, with the likelihood of noticing changes increasing steadily with age to a high of 56.2% but falling off for respondents 65 and over. The response pattern for income (Q36 x Q50) was more consistent; noticing changes in ride and income increased simultaneously.

Q37 (Noticed Pavement Changes on Specific Highway Stretches) Xtabs

When Q37 Xtabs are added, the process of interpreting Q36 Xtabs becomes more complete. Recall the close ties between responses to Q36 and Q37. In Q37 respondents were asked to focus more specifically on pavement changes they had noticed in terms of specific highway stretches. Since a "no" answer to Q37 involved a skip to Q42, questions 40 and 41 were incomplete for the purpose of Xtab analysis.

In terms of driving and vehicle characteristics, driving frequency did influence the perception process. As Q37 x Q35 shows, respondents who drove 7 days per week were more likely to have noticed pavement changes on specific highway stretches (61.6% "yes"). The roughness of ride for vehicles also entered into the process. Noticing changes on specific stretches increased as the ratings of the vehicle's ride declined from "very good" to "very poor",

with the exception of responses for those reporting “poor ride” (Q37 x Q46). The basic inverse relationship would be expected in this case.

With reference to respondent demographics, age, Q37 x Q48, did not reveal a pattern as clear as that for Q36. Although noticing changes again fell for respondents 65 and over, the age group with the highest percentage of “yes” responses (54.1%) was 35 to 50 years of age. Education, Q37 x Q49, exhibited interesting dynamics, with noticing decreasing with rising educational levels up to post-graduate study, at which point noticing jumped to its high of 55.2%. The pattern, however, was that of an inverse relationship for most the 352 motorists answering this question.

For questions 36 and 37, noticing pavement changes and more particularly, on specific highway stretches, the Xtabs, in sum, revealed relationships which aided interpretation. Driving, vehicle and demographic characteristics all were involved to some extent in evaluating the response patterns.

Q40 (Opinion on Way the Road Rides in Winter) Xtabs

In Q40 the basic tolerance threshold was first addressed when respondents expressed their opinions as to whether the ride on the specific stretch of highway they drove in the winter was too rough or at least tolerable. This had the advantage of making their opinion pavement-specific for a designated stretch of highway. Overall, the Xtabs for Q40 provided less assistance in interpreting the response patterns. For many of the Xtabs there were no distinct differences in answers across response categories. Driving frequency, car size and age were the only descriptors which merited attention. Based on the Xtab Q40 x Q35, respondents who drove the least, in general, were the most likely to have found the winter ride tolerable (72.2% for coded category 230, several days per month). This is a logical finding. Likewise, Q40 x Q45a reveals a clear pattern with tolerance for the way the road rides increasing as the size of the car increased to full size. Better shock absorption in a full size versus a compact may well come into play. Moreover, Q40 x Q48 reveals that drivers 65 and over in age were more likely to view the winter ride as tolerable (75.0%). It is the 65 and over age group which is likely to drive less frequently in the winter.

Apart from the descriptors, the only other variable associated with this initial measure of tolerance was that of perception. As Q40 x Q36 indicates, respondents who noticed pavement changes since the start of winter were less likely to judge the way the road rides as “at least tolerable” (58.6% for “yes” vs. 75.8% for “no”). This meant that those noticing the changes were much more likely to evaluate the winter ride of the pavement as being too rough. Clearly, it was the negative component of the winter ride that caught their attention.

Q41 (More Tolerant of Rough Ride in Winter?) Xtabs

The key focus of the winter ride survey was Q41, asking respondents whether they were more tolerant of a rough ride in winter than they would be the rest of the year. For this question the Xtabs proved to be more useful in interpreting the tolerance dimension. When Q41 was run against the preceding Q40, the resulting Xtab (Q41 x Q40) was in line with expectations. The tolerance findings were consistent; those who found the ride tolerable in Q40 were much more likely to be tolerant of the rough ride in winter. Further consistency was demonstrated when Q42 was factored in. As would be expected from Q41 x Q42, respondents who did not avoid specific

highway stretches tended to be somewhat more tolerant of the rough ride in winter.

In terms of driving and demographic characteristics, further consistency was demonstrated by several of the Xtabs. For frequency of driving, Q41 x Q35, respondents who drove 7 days per week were somewhat less tolerant of the rough ride in winter. It was this group of respondents who were also more likely to have noticed pavement changes (Q36) and on specific highway stretches as well (Q37). As would be expected, the few motorists who gave poor or very poor ratings to their vehicles' ride were less tolerant than the other motorists (Q41 x Q46).

Of the demographic factors, educational level exhibited an unusual pattern. The Xtab of Q41 x Q49 indicates that college graduates were more tolerant (85.7% "yes") than were respondents in the other educational categories. This is open to speculation since those in the post graduate category were in line with the others as to tolerance. Total household income, on the other hand, showed a very clear pattern, namely an inverse relationship. Tolerance for the rough ride in winter declined as household income increased (Q41 x Q50). Finally, gender was worth noting in that females were slightly more tolerant of the winter ride than were males (Q41 x Q52). For the three demographic characteristics, however, income exhibited the most discernible pattern.

Q42 (Avoid Specific Stretches Because of Intolerable Ride) Xtabs

Added to the tolerance dimension was the behavioral factor of avoidance in Q42. As a check for further consistency Q42 was run against Q40 (way road rides too rough or tolerable). As Q40 x Q42 indicates, respondents who avoided specific highway stretches were less likely to find the rough ride in winter tolerable than those who did not report avoidance (47.4% vs. 64.1%). This is in line with the other findings on tolerance.

In terms of driving and vehicle characteristics, several merited attention. Respondents who drove more frequently, i.e., 7 days/wk., were somewhat more likely to avoid specific stretches of highway (Q42 x Q35). By the same token, drivers of minivans and trucks were more likely to avoid specific stretches (Q42 x Q45). As previously noted, truck drivers were also more likely to have noticed changes in the pavement's ride since the start of winter. At the same time, avoidance and rating the roughness of the vehicle's ride were inversely related. Avoidance increased as the ride ratings fell toward "very poor", with the exception of the 20 respondents in the "poor ride" category (Q42 x Q46). That avoidance would be linked to vehicle ride is logical.

With regard to demographic descriptors age played a role in avoidance behavior. As Q42 x Q48 reveals, avoidance was inversely related to age. As the age of respondents increased, reported avoidance of specific highway stretches declined. What must be factored in, of course, is the realization that older motorists would not be driving on rural tow-lane highways in the winter as often as younger motorists would be. Educational level also came into play, with avoidance being virtually nonexistent for respondents at the higher educational levels of college or post graduate (Q42 x Q49). Far less dramatic was gender, with the composition of the 39 drivers who avoided specific stretches being 61.5% male (Q42 x Q52). This is consistent with an earlier finding in which females tended to be somewhat more tolerant of the rough ride in winter.

Future Work

One of the study goals is to compare the informal tolerance levels from the winter ride surveys with threshold levels derived from broader survey data developed later in Phases 2 or 3 of the project. The highways identified as tolerable in this winter ride survey will be compared to any of the same highways identified later during normal weather. Obviously, the same stretches have to show up in either phase for that to be done (note this was not done at a later date).

Because no actual observations were taken by the states as to the extent of the roughness caused by winter weather, a targeted survey could be considered when the third phase of the overall project is undertaken. The states would have to measure the extent of the rough winter ride, during which time, a special targeted survey could be conducted regarding just those targeted highways. While this was originally not estimated, it could still be considered. The states will have to decide whether the extent of intolerance warrants a special survey.

CONCLUSIONS

With regard to the major objective, the Wisconsin Winter Ride Survey provided a key finding: Respondents were predominantly tolerant of the pavement's rougher ride in winter. Approximately three-fourths (74.6%) of the 173 respondents who had noticed changes in the pavement's roughness reported being more tolerant of this rough ride in winter than they would be the rest of the year. Interestingly, about one-half (51.4%) of the 358 motorists answering Q36 had not noticed changes in the pavement since the start of winter. Of the 129 respondents who subsequently answered Q41a, the two main reasons given for tolerating a rough ride in winter were "freezing weather changes the road" and "nothing I can do about it". In short, such changes on Wisconsin rural highways were expected. Most telling was the finding as to the actual behavior of avoidance resulting from intolerance of the winter ride. Only 10.9 percent of the 358 motorists responding to Q42 indicated that they had avoided specific stretches of highway in Wisconsin. As previously noted, open-ended responses regarding Wisconsin highways and specific stretches avoided are provided in Appendices C and D.

In terms of respondents' perceptions, Xtabs complemented the picture on relationships among responses. Driving and vehicle characteristics influenced the degree to which respondents noticed changes in the pavement's ride since the beginning of winter. It should be reiterated that 60 percent of the respondents drove cars, with the next largest vehicle groups being trucks (24%) and minivans (11.2%). Only 6.7 percent of the motorists rated their vehicle's ride as "poor" or "very poor." The Xtabs showed that motorists who drove more frequently on rural two-lane highways, as well as those driving trucks and sport utility vehicles, were more likely to notice changes. Noticing changes on specific stretches generally increased as ratings of the vehicle's ride declined toward "very poor". As such, the results suggested that suspension and ride considerations did influence responses. Among the demographic descriptors, age and household income played key roles. Noticing changes increased through age 50 but declined after 65. As the household income level of the respondents increased, so did the likelihood of noticing changes in the pavement since the outset of winter.

Tolerance was also influenced by certain driving and demographic characteristics. Not surprisingly, respondents who drove the least were more likely to find the way the road rides in winter to be tolerable. Likewise, those who viewed the winter ride as tolerable were more likely to be motorists 65 and over in age. For the key question of whether respondents were more tolerant of the rough ride in winter, Q41, several respondent descriptors shed additional light on relationships. Consistent with the findings for Q40, motorists who drove most frequently (7

days/wk.) were less tolerant than other motorists. Overall, tolerance declined as household income increased. The Xtabs also helped explain the avoidance behaviors directly linked to the tolerance dimension. As a case in point, respondents who avoided specific stretches of highway were less tolerant of the rough ride in winter. Motorists who drove more frequently and those driving minivans and trucks were somewhat more likely to avoid specific stretches. As expected, avoidance generally increased as respondents' ratings of the ride of their vehicles fell. Most dramatic among the descriptor results was the finding that avoidance was virtually nonexistent for college and post graduates. Finally, the majority of respondents who avoided specific stretches were male.

Wisconsin Winter Ride Survey findings, on the whole, were reasonably consistent. Survey answers, together with the results of the analysis, have offered insights into the perceptions and tolerance of motorists who have driven Wisconsin's rural two-lane highways in winter.

Appendix A

SURVEY CODEBOOK

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

project 3060 n of cases 402.0

.....

question 35 column(s) 6-8

The next questions will ask about your winter driving habits.

How many days per week or per month do you drive on rural
two lane numbered highways in Wisconsin, not including county
or local roads ?

(RURAL ROADS: THESE ARE TWO-LANE HIGHWAYS IN RURAL AREAS WITH
EITHER A STATE OR U.S. DESIGNATION (ALWAYS NUMBERED), WHERE THE
SPEED LIMIT IS USUALLY 50-55 MPH. WE ARE NOT TALKING ABOUT
HIGHWAYS IN CITIES, COUNTY ROADS (WHICH HAVE A LETTER
DESIGNATION) OR INTERSTATES (I-90/I-94).)

n	%	
----	-----	
34	8.46	000. NEVER (skip to end)
33	8.21	101. 1 DAY PER WEEK
25	6.22	102.
25	6.22	103.
14	3.48	104.
41	10.20	105.
23	5.72	106.
73	18.16	107. 7 DAYS PER WEEK
20	4.98	201. 1 DAY PER MONTH
33	8.21	202.
8	1.99	203.
5	1.24	204.
8	1.99	205.
2	0.50	206.
3	0.75	208.
5	1.24	210.
1	0.25	214.
6	1.49	215.
1	0.25	218.
1	0.25	220.
1	0.25	228.
3	0.75	230.
0	0.00	231. 31 DAYS PER MONTH

Wisconsin Opinions - Unweighted Frequencies
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33	8.21	333. DON'T DRIVE (VOL) (skip to end)
2	0.50	998. DON'T KNOW/NOT SURE
2	0.50	999. REFUSED
0	0.00	^. Inap

question 36 column(s) 9

Have you noticed any changes in the pavement on any of these
highways (excluding ice or snow) since the beginning of winter ?

n	%	
-----	-----	
157	39.05	1. YES
173	43.03	2. NO
5	1.24	8. DON'T KNOW/NOT SURE (skip to q 42)
0	0.00	9. REFUSED (skip to q 42)
67	16.67	^. Inap

question 37 column(s) 10

Have you noticed stretches of these highways where the pavement's
roughness or ride has changed since the beginning of winter ?

n	%	
-----	-----	
165	41.04	1. YES
162	40.30	2. NO (skip to q 42)
3	0.75	8. DON'T KNOW/NOT SURE (skip to q 42)
0	0.00	9. REFUSED (skip to q 42)
72	17.91	^. Inap

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 38 column(s) 11-13

On what highway have you noticed this (these) changes in ride ?

n	%	
----	-----	
3	0.75	002. HIGHWAY 2
2	0.50	8.
6	1.49	10.
1	0.25	11.
7	1.74	12.
7	1.74	13.
4	1.00	14.
1	0.25	16.
2	0.50	18.
1	0.25	20.
5	1.24	23.
1	0.25	24.
1	0.25	25.
1	0.25	26.
2	0.50	27.
4	1.00	29.
1	0.25	30.
5	1.24	31.
1	0.25	32.
1	0.25	33.
3	0.75	35.
2	0.50	36.
1	0.25	38.
7	1.74	41.
1	0.25	42.
2	0.50	43.
1	0.25	44.
4	1.00	45.
1	0.25	47.
2	0.50	48.
13	3.23	51.
4	1.00	53.
3	0.75	54.
2	0.50	57.
1	0.25	58.
3	0.75	59.
2	0.50	60.
1	0.25	63.
1	0.25	64.
1	0.25	65.
1	0.25	67.
1	0.25	70.
2	0.50	73.
1	0.25	78.

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1	0.25	83.	
1	0.25	89.	
1	0.25	91.	
1	0.25	93.	
4	1.00	94.	
1	0.25	96.	
1	0.25	97.	
1	0.25	99.	
1	0.25	100.	
1	0.25	101.	
1	0.25	107.	
1	0.25	124.	
2	0.50	141.	
1	0.25	142.	
1	0.25	144.	
1	0.25	151.	
1	0.25	158.	
2	0.50	161.	
1	0.25	162.	
2	0.50	170.	
1	0.25	178.	
1	0.25	182.	
1	0.25	251.	
1	0.25	253.	
0	0.00	300.	300
15	3.73	998.	DON'T KNOW/NOT SURE
4	1.00	999.	REFUSED
237	58.96	^.	Inap

question 39 column(s) 14-14

Can you tell me on what stretch of the highway you noticed
 this change (these changes) ? That is, between what towns
 or crossroads is this stretch ?

n	%	
----	-----	
150	37.31	1. RESPONSE
15	3.73	8. DON'T KNOW/NOT SURE
0	0.00	9. REFUSED
237	58.96	^.

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 40 column(s) 15

In your opinion, is the way this road rides in the winter too rough, or is it at least tolerable ?

n	%	
----	-----	
60	14.93	1. ROUGH
103	25.62	2. TOLERABLE
2	0.50	8. DON'T KNOW/NOT SURE
0	0.00	9. REFUSED
237	58.96	^. Inap

question 41 column(s) 16

Are you more tolerant of this rough ride in winter than you would be the rest of the year ?

n	%	
----	-----	
121	30.10	1. YES
41	10.20	2. NO (skip to q 42)
3	0.75	8. DON'T KNOW/NOT SURE (skip to q 42)
0	0.00	9. REFUSED (skip to q 42)
237	58.96	^. Inap

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 41a column(s) 17-18

Please give me a reason why you would tolerate
a rougher ride in winter ?

1ST RESPONSE

n	%	
----	-----	
4	1.00	00. OTHER
12	2.99	01. DIFFICULT TO MAINTAIN / REPAIR IN WINTER
51	12.69	02. FREEZING WEATHER CHANGES THE ROAD - HEAVES, CRACKS
13	3.23	03. THERE IS SNOW ON THE GROUND
26	6.47	04. NOTHING I CAN DO ABOUT IT-EXPECT IT - IT IS WINTER-USED TO IT
8	1.99	05. HAVE TO DRIVE - WORK, SCHOOL
2	0.50	07. VEHICLE RUNS ROUGHER IN COLD WEATHER - POORER SUSPENSION
3	0.75	08. DRIVE SLOWER
2	0.50	98. DON'T KNOW
0	0.00	99. REFUSED
281	69.90	^. Inap

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 41a column(s) 19-20

Please give me a reason why you would tolerate
a rougher ride in winter ?

2ND RESPONSE

n	%	
-----	-----	
1	0.25	00. OTHER
1	0.25	01. DIFFICULT TO MAINTAIN / REPAIR IN WINTER
1	0.25	02. FREEZING WEATHER CHANGES THE ROAD - HEAVES, CRACKS
3	0.75	03. THERE IS SNOW ON THE GROUND
0	0.00	04. NOTHING I CAN DO ABOUT IT-EXPECT IT - IT IS WINTER-USED TO IT
0	0.00	05. HAVE TO DRIVE - WORK, SCHOOL
0	0.00	07. VEHICLE RUNS ROUGHER IN COLD WEATHER - POORER SUSPENSION
1	0.25	08. DRIVE SLOWER
2	0.50	98. DON'T KNOW
0	0.00	99. REFUSED
393	97.76	^. Inap

question 42 column(s) 21

Do you avoid any specific stretches of highway because
of an intolerable ride in the winter ?

n	%	
-----	-----	
36	8.96	1. YES
297	73.88	2. NO (skip to q 45)
2	0.50	8. DON'T KNOW/NOT SURE (skip to q 45)
0	0.00	9. REFUSED (skip to q 45)
67	16.67	^. Inap

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 43 column(s) 22-24

What highway do you avoid in winter because of
an intolerable ride ?

n	%	
----	-----	
0	0.00	008. HIGHWAY 8
2	0.50	10.
3	0.75	12.
2	0.50	13.
2	0.50	18.
1	0.25	20.
1	0.25	29.
1	0.25	32.
3	0.75	41.
2	0.50	43.
1	0.25	45.
2	0.50	51.
1	0.25	53.
1	0.25	70.
1	0.25	73.
1	0.25	93.
1	0.25	107.
1	0.25	153.
1	0.25	164.
0	0.00	300. 300
8	1.99	998. DON'T KNOW/NOT SURE
1	0.25	999. REFUSED
366	91.04	^. Inap

question 44 column(s) 25-25

Can you tell me which stretch of the highway you avoid ?
That is, between what towns or crossroads is this stretch ?

n	%	
----	-----	
31	7.71	1. RESPONSE
5	1.24	8. DON'T KNOW/NOT SURE
0	0.00	9. REFUSED
366	91.04	^. Inap

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 45 column(s) 26-27

What kind of vehicle do you NORMALLY drive ? Do you usually drive a minivan, a motorcycle, a truck, a car, or some other vehicle ?

(IF R DRIVES MORE THAN ONE VEHICLE, HAVE HIM/HER CHOOSE VEHICLE DRIVEN MOST OFTEN IN WINTER)

n	%	
0	0.00	00. I DON'T DRIVE AT ALL (skip to end)
36	8.96	01. MINIVAN (skip to q 46)
0	0.00	02. MOTORCYCLE (skip to q 46)
82	20.40	03. TRUCK (skip to q 46)
201	50.00	04. CAR
3	0.75	05. OTHER (skip to q 46)
7	1.74	06. FULL SIZE VAN (skip to q 46)
6	1.49	07. SPORT UTILITY VEHICLE (skip to q 46)
0	0.00	98. DON'T KNOW/NOT SURE (skip to q 46)
0	0.00	99. REFUSED (skip to q 46)
67	16.67	^. Inap

question 45a column(s) 28

Is that considered a compact, a mid-size, or a full-size car ?

n	%	
50	12.44	1. COMPACT
97	24.13	2. MID SIZE
50	12.44	3. FULL SIZE
4	1.00	8. DON'T KNOW/NOT SURE
0	0.00	9. REFUSED
201	50.00	^. Inap

Wisconsin Opinions - Unweighted Frequencies
January - March 1997

question 46 column(s) 29

How would you rate the roughness of the ride of your vehicle ?
 Would you say it has a very good ride, a good ride, an average ride,
 a poor ride, or a very poor ride ?

(THIS REFERS TO HOW MUCH THEY FEEL THE BUMPS ON THE ROAD
 WHEN DRIVING)

n	%	
-----	-----	
92	22.89	1. VERY GOOD RIDE
117	29.10	2. GOOD RIDE
105	26.12	3. AVERAGE RIDE
16	3.98	4. POOR RIDE
4	1.00	5. VERY POOR RIDE
0	0.00	8. DON'T KNOW/NOT SURE
1	0.25	9. REFUSED
67	16.67	^. Inap

Appendix B

RESPONSE FREQUENCIES

EDUCATIN Educational level

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
EIGHTH GRADE OR LESS	1	16	3.7	3.7	3.7
SOME HIGH SCHOOL	2	31	7.2	7.2	10.9
HIGH SCHOOL GRAD	3	146	33.7	33.8	44.7
SOME TECH SCHOOL	4	24	5.5	5.6	50.2
TECH SCHOOL GRAD	5	20	4.6	4.6	54.9
SOME COLLEGE	6	96	22.2	22.2	77.1
COLLEGE GRADUATE	7	65	15.0	15.0	92.1
POST GRAD	8	34	7.9	7.9	100.0
REFUSED	99	1	.2	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	

Valid cases 432 Missing cases 1

YEARBORN Year of birth

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	905	1	.2	.2	.2
	910	2	.5	.5	.7
	911	2	.5	.5	1.2
	915	2	.5	.5	1.6
	916	4	.9	.9	2.6
	917	1	.2	.2	2.8
	918	1	.2	.2	3.0
	919	3	.7	.7	3.7
	920	5	1.2	1.2	4.9
	921	5	1.2	1.2	6.0
	922	5	1.2	1.2	7.2
	923	3	.7	.7	7.9
	924	4	.9	.9	8.8
	925	4	.9	.9	9.7
	926	13	3.0	3.0	12.8
	927	4	.9	.9	13.7
	928	6	1.4	1.4	15.1
	929	1	.2	.2	15.3
	930	5	1.2	1.2	16.5
	931	2	.5	.5	16.9
	932	2	.5	.5	17.4
	933	2	.5	.5	17.9
	934	2	.5	.5	18.3
	935	5	1.2	1.2	19.5
	936	3	.7	.7	20.2
	937	1	.2	.2	20.4
	939	10	2.3	2.3	22.7
	940	6	1.4	1.4	24.1
	941	8	1.8	1.9	26.0
	942	9	2.1	2.1	28.1
	943	6	1.4	1.4	29.5

944	4	.9	.9	30.4
945	7	1.6	1.6	32.0
946	7	1.6	1.6	33.6
947	12	2.8	2.8	36.4
948	12	2.8	2.8	39.2
949	6	1.4	1.4	40.6
950	5	1.2	1.2	41.8
951	10	2.3	2.3	44.1
952	11	2.5	2.6	46.6
953	12	2.8	2.8	49.4
954	10	2.3	2.3	51.7
955	11	2.5	2.6	54.3
956	11	2.5	2.6	56.8
957	11	2.5	2.6	59.4
958	11	2.5	2.6	61.9

YEARBORN Year of birth

	959	9	2.1	2.1	64.0
	960	13	3.0	3.0	67.1
	961	11	2.5	2.6	69.6
	962	12	2.8	2.8	72.4
	963	13	3.0	3.0	75.4
	964	9	2.1	2.1	77.5
	965	7	1.6	1.6	79.1
	966	6	1.4	1.4	80.5
	967	7	1.6	1.6	82.1
	968	11	2.5	2.6	84.7
	969	8	1.8	1.9	86.5
	970	9	2.1	2.1	88.6
	971	12	2.8	2.8	91.4
	972	3	.7	.7	92.1
	973	7	1.6	1.6	93.7
	974	5	1.2	1.2	94.9
	975	5	1.2	1.2	96.1
	976	6	1.4	1.4	97.4
	977	10	2.3	2.3	99.8
	978	1	.2	.2	100.0
REFUSED	999	2	.5	Missing	

Total	433	100.0	100.0
-------	-----	-------	-------

Valid cases 431 Missing cases 2

YRSINWIS How many years have you lived in Wiscon

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
LESS THAN 1 YEAR	0	8	1.8	1.8	1.8
	1	4	.9	.9	2.8
	2	10	2.3	2.3	5.1
	3	8	1.8	1.8	6.9

4	3	.7	.7	7.6
5	5	1.2	1.2	8.8
6	3	.7	.7	9.5
7	4	.9	.9	10.4
8	7	1.6	1.6	12.0
9	5	1.2	1.2	13.2
10	3	.7	.7	13.9
11	2	.5	.5	14.3
12	1	.2	.2	14.5
13	6	1.4	1.4	15.9
14	3	.7	.7	16.6
15	4	.9	.9	17.6
16	4	.9	.9	18.5
17	2	.5	.5	18.9
18	4	.9	.9	19.9
19	4	.9	.9	20.8
20	7	1.6	1.6	22.4
21	1	.2	.2	22.6
22	4	.9	.9	23.6
23	9	2.1	2.1	25.6
25	9	2.1	2.1	27.7
26	5	1.2	1.2	28.9
27	2	.5	.5	29.3
28	3	.7	.7	30.0
29	4	.9	.9	30.9
30	10	2.3	2.3	33.3
31	4	.9	.9	34.2
32	4	.9	.9	35.1
33	3	.7	.7	35.8
34	4	.9	.9	36.7
35	4	.9	.9	37.6
36	4	.9	.9	38.6
37	2	.5	.5	39.0
38	2	.5	.5	39.5
39	4	.9	.9	40.4
40	12	2.8	2.8	43.2
41	4	.9	.9	44.1
42	4	.9	.9	45.0
43	5	1.2	1.2	46.2
44	1	.2	.2	46.4
45	6	1.4	1.4	47.8
46	7	1.6	1.6	49.4

YRSINWIS How many years have you lived in Wiscon

47	3	.7	.7	50.1
48	4	.9	.9	51.0
49	9	2.1	2.1	53.1
50	6	1.4	1.4	54.5
51	1	.2	.2	54.7
52	3	.7	.7	55.4
57	2	.5	.5	55.9
58	1	.2	.2	56.1
60	2	.5	.5	56.6
62	2	.5	.5	57.0
63	2	.5	.5	57.5
65	1	.2	.2	57.7

	66	1	.2	.2	58.0
	68	1	.2	.2	58.2
	69	2	.5	.5	58.7
	70	1	.2	.2	58.9
	75	1	.2	.2	59.1
	76	2	.5	.5	59.6
	80	1	.2	.2	59.8
	83	1	.2	.2	60.0
ALL MY LIFE	97	173	40.0	40.0	100.0
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	433	Missing cases	0		

COUNTY What county do you live in

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
ADAMS	1	4	.9	.9	.9
ASHLAND	2	1	.2	.2	1.2
BARRON	3	9	2.1	2.1	3.2
BAYFIELD	4	4	.9	.9	4.2
BROWN	5	20	4.6	4.6	8.8
BUFFALO	6	2	.5	.5	9.2
CALUMET	8	1	.2	.2	9.5
CHIPPEWA	9	6	1.4	1.4	10.9
CLARK	10	3	.7	.7	11.5
COLUMBIA	11	7	1.6	1.6	13.2
CRAWFORD	12	2	.5	.5	13.6
DANE	13	40	9.2	9.2	22.9
DODGE	14	8	1.8	1.8	24.7
DOOR	15	3	.7	.7	25.4
DOUGLAS	16	7	1.6	1.6	27.0
DUNN	17	5	1.2	1.2	28.2
EAU CLAIRE	18	5	1.2	1.2	29.3
FLORENCE	19	1	.2	.2	29.6
FOND DU LAC	20	5	1.2	1.2	30.7
GRANT	22	4	.9	.9	31.6
GREEN	23	1	.2	.2	31.9
GREEN LAKE	24	2	.5	.5	32.3
IOWA	25	3	.7	.7	33.0
IRON	26	2	.5	.5	33.5
JACKSON	27	6	1.4	1.4	34.9
JEFFERSON	28	6	1.4	1.4	36.3
JUNEAU	29	2	.5	.5	36.7
KENOSHA	30	13	3.0	3.0	39.7
KEWAUNEE	31	1	.2	.2	40.0
LA CROSSE	32	6	1.4	1.4	41.3
LAFAYETTE	33	2	.5	.5	41.8
LINCOLN	35	5	1.2	1.2	43.0
MANITOWOC	36	10	2.3	2.3	45.3
MARATHON	37	11	2.5	2.5	47.8
MARINETTE	38	6	1.4	1.4	49.2
MILWAUKEE	41	65	15.0	15.0	64.2
MONROE	42	4	.9	.9	65.1

OCONTO	43	1	.2	.2	65.4
ONEIDA	44	3	.7	.7	66.1
OUTAGAMIE	45	12	2.8	2.8	68.8
OZAUKEE	46	3	.7	.7	69.5
PIERCE	48	1	.2	.2	69.7
POLK	49	3	.7	.7	70.4
PORTAGE	50	9	2.1	2.1	72.5
PRICE	51	2	.5	.5	73.0
RACINE	52	15	3.5	3.5	76.4

COUNTY What county do you live in

RICHLAND	53	3	.7	.7	77.1
ROCK	54	9	2.1	2.1	79.2
RUSK	55	1	.2	.2	79.4
ST. CROIX	56	3	.7	.7	80.1
SAUK	57	3	.7	.7	80.8
SHEBOYGAN	60	8	1.8	1.8	82.7
TREMPEALEAU	62	3	.7	.7	83.4
VERNON	63	2	.5	.5	83.8
WALWORTH	65	12	2.8	2.8	86.6
WASHBURN	66	1	.2	.2	86.8
WASHINGTON	67	5	1.2	1.2	88.0
WAUKESHA	68	27	6.2	6.2	94.2
WAUPACA	69	3	.7	.7	94.9
WAUSHARA	70	1	.2	.2	95.2
WINNEBAGO	71	11	2.5	2.5	97.7
WOOD	72	10	2.3	2.3	100.0

	-----	-----	-----
Total	433	100.0	100.0

Valid cases 433 Missing cases 0

ZIPCODE What is your zip code?

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
530	530	33	7.6	7.6	7.6
	531	52	12.0	12.0	19.6
	532	60	13.9	13.9	33.5
	534	13	3.0	3.0	36.5
	535	34	7.9	7.9	44.3
	537	28	6.5	6.5	50.8
	538	6	1.4	1.4	52.2
	539	14	3.2	3.2	55.4
	540	5	1.2	1.2	56.6
	541	13	3.0	3.0	59.6
	542	12	2.8	2.8	62.4
	543	17	3.9	3.9	66.3
	544	41	9.5	9.5	75.8
	545	7	1.6	1.6	77.4
	546	24	5.5	5.5	82.9

		547	18	4.2	4.2	87.1
		548	24	5.5	5.5	92.6
549		549	32	7.4	7.4	100.0
		-----		-----	-----	
		Total	433	100.0	100.0	

Valid cases 433 Missing cases 0

RACE What is your ethnic origin or race?

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
WHITE	1	385	88.9	92.1	92.1
BLACK/AFRICAN AMER	2	18	4.2	4.3	96.4
ASIAN OR PACIFIC ISL	4	12	2.8	2.9	99.3
AMERICAN INDIAN	5	2	.5	.5	99.8
DONT KNOW	8	1	.2	.2	100.0
	.	11	2.5	Missing	
REFUSED	9	4	.9	Missing	
	-----		-----	-----	
	Total	433	100.0	100.0	

Valid cases 418 Missing cases 15

HISPANIC Are you of Hispanic origin

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	11	2.5	2.5	2.5
NO	2	421	97.2	97.5	100.0
REFUSED	9	1	.2	Missing	
	-----		-----	-----	
	Total	433	100.0	100.0	

Valid cases 432 Missing cases 1

MARITAL Marital status

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
MARRIED	1	225	52.0	52.1	52.1
DIVORCED	2	63	14.5	14.6	66.7
WIDOWED	3	42	9.7	9.7	76.4
SEPARATED	4	3	.7	.7	77.1
NEVER MARRIED	5	89	20.6	20.6	97.7

UNMARRIED COUPLE	6	10	2.3	2.3	100.0
REFUSED	9	1	.2	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	
Valid cases	432	Missing cases	1		

POLITPAR Political party affiliation

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
SOMETHING ELSE	0	7	1.6	1.6	1.6
REPUBLICAN	1	120	27.7	28.2	29.9
DEMOCRAT	2	151	34.9	35.5	65.4
INDEPENDENT	3	102	23.6	24.0	89.4
NO PREFERENCE	4	40	9.2	9.4	98.8
DONT KNOW	8	5	1.2	1.2	100.0
REFUSED	9	8	1.8	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	
Valid cases	425	Missing cases	8		

PARSTRNG Strength of political views

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
STRONG	1	127	29.3	46.9	46.9
NOT SO STRONG	2	144	33.3	53.1	100.0
	.	162	37.4	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	
Valid cases	271	Missing cases	162		

PARCLOSE Closer to which political party

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
REPUBLICAN	1	42	9.7	31.8	31.8
DEMOCRATIC	2	42	9.7	31.8	63.6
NEITHER (VOLUNTEERS)	3	37	8.5	28.0	91.7
DONT KNOW	8	11	2.5	8.3	100.0
	.	291	67.2	Missing	
REFUSED	9	10	2.3	Missing	
		-----	-----	-----	

		Total	433	100.0	100.0
Valid cases	132	Missing cases	301		

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POLTVIEW Describe your political views

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
VERY LIBERAL	1	17	3.9	4.0	4.0
LIBERAL	2	92	21.2	21.4	25.3
MODERATE	3	165	38.1	38.4	63.7
CONSERVATIVE	4	124	28.6	28.8	92.6
VERY CONSERVATIVE	5	12	2.8	2.8	95.3
DONT KNOW	8	20	4.6	4.7	100.0
REFUSED	9	3	.7	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	

Valid cases	430	Missing cases	3
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HHINCOME Total household income last year

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
LESS THAN \$1,000	0	3	.7	.8	.8
	3	1	.2	.3	1.0
	4	1	.2	.3	1.3
	5	3	.7	.8	2.0
	6	5	1.2	1.3	3.3
	7	6	1.4	1.5	4.8
	8	2	.5	.5	5.3
	9	2	.5	.5	5.8
\$10,000 TO \$10,999	10	6	1.4	1.5	7.3
	12	8	1.8	2.0	9.3
	13	2	.5	.5	9.8
	14	1	.2	.3	10.0
	15	7	1.6	1.8	11.8
	18	7	1.6	1.8	13.5
	19	1	.2	.3	13.8
	20	9	2.1	2.3	16.0
	21	1	.2	.3	16.3
	22	5	1.2	1.3	17.5
	23	3	.7	.8	18.3
	24	1	.2	.3	18.5
	25	10	2.3	2.5	21.1
	26	6	1.4	1.5	22.6
	27	1	.2	.3	22.8
	28	4	.9	1.0	23.8
	29	2	.5	.5	24.3
	30	24	5.5	6.0	30.3

31	4	.9	1.0	31.3
32	2	.5	.5	31.8
33	2	.5	.5	32.3
34	1	.2	.3	32.6
35	14	3.2	3.5	36.1
36	8	1.8	2.0	38.1
37	3	.7	.8	38.8
38	2	.5	.5	39.3
39	1	.2	.3	39.6
40	26	6.0	6.5	46.1
41	3	.7	.8	46.9
42	1	.2	.3	47.1
44	2	.5	.5	47.6
45	18	4.2	4.5	52.1
46	1	.2	.3	52.4
48	5	1.2	1.3	53.6
50	28	6.5	7.0	60.7
52	1	.2	.3	60.9
53	2	.5	.5	61.4
54	2	.5	.5	61.9

HHINCOME Total household income last year

55	11	2.5	2.8	64.7	
56	1	.2	.3	64.9	
57	1	.2	.3	65.2	
58	1	.2	.3	65.4	
60	13	3.0	3.3	68.7	
62	1	.2	.3	68.9	
65	6	1.4	1.5	70.4	
67	1	.2	.3	70.7	
70	12	2.8	3.0	73.7	
75	11	2.5	2.8	76.4	
76	1	.2	.3	76.7	
80	9	2.1	2.3	78.9	
83	1	.2	.3	79.2	
90	5	1.2	1.3	80.5	
100	5	1.2	1.3	81.7	
110	1	.2	.3	82.0	
120	1	.2	.3	82.2	
125	1	.2	.3	82.5	
130	1	.2	.3	82.7	
170	1	.2	.3	83.0	
200	1	.2	.3	83.2	
250	1	.2	.3	83.5	
650	1	.2	.3	83.7	
DONT KNOW	998	65	15.0	16.3	100.0
REFUSED	999	34	7.9	Missing	
Total		433	100.0	100.0	

Valid cases 399 Missing cases 34

INCOMEGRP Household income group

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
UNDER \$10,000	1	13	3.0	17.8	17.8
\$10 TO LESS THAN \$20	2	15	3.5	20.5	38.4
\$20 TO LESS THAN \$30	3	13	3.0	17.8	56.2
\$30 TO LESS THAN \$40	4	5	1.2	6.8	63.0
\$40 TO LESS THAN \$50	5	7	1.6	9.6	72.6
\$50 TO LESS THAN \$60	6	2	.5	2.7	75.3
\$60 TO LESS THAN \$70	7	4	.9	5.5	80.8
\$80,000 OR MORE	9	4	.9	5.5	86.3
DONT KNOW	98	10	2.3	13.7	100.0
	.	334	77.1	Missing	
REFUSED	99	26	6.0	Missing	
		-----	-----		
	Total	433	100.0	100.0	

Valid cases 73 Missing cases 360

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SEXOFR Sex of Respondent

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
MALE	1	199	46.0	46.0	46.0
FEMALE	2	234	54.0	54.0	100.0
		-----	-----		
	Total	433	100.0	100.0	

Valid cases 433 Missing cases 0

KWDRURAL Times drive on rural roads in winter

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
NEVER	0	38	8.8	8.8	8.8
1 DAY PER WEEK	101	37	8.5	8.6	17.4
	102	25	5.8	5.8	23.2
	103	25	5.8	5.8	29.0
	104	14	3.2	3.2	32.3
	105	41	9.5	9.5	41.8
	106	27	6.2	6.3	48.0
7 DAYS PER WEEK	107	73	16.9	16.9	65.0
1 DAY PER MONTH	201	20	4.6	4.6	69.6
	202	36	8.3	8.4	78.0
	203	8	1.8	1.9	79.8
	204	5	1.2	1.2	81.0
	205	16	3.7	3.7	84.7
	206	2	.5	.5	85.2
	208	3	.7	.7	85.8

	210	9	2.1	2.1	87.9
	214	1	.2	.2	88.2
	215	6	1.4	1.4	89.6
	218	1	.2	.2	89.8
	220	1	.2	.2	90.0
	228	1	.2	.2	90.3
	230	3	.7	.7	91.0
DONT DRIVE (VOL)	333	37	8.5	8.6	99.5
DONT KNOW/NOT SURE	998	2	.5	.5	100.0
REFUSED	999	2	.5	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	431	Missing cases	2		

KWPAVE Changes in pavement since start of winte

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	169	39.0	47.2	47.2
NO	2	184	42.5	51.4	98.6
DONT KNOW/NOT SURE	8	5	1.2	1.4	100.0
	.	75	17.3	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	358	Missing cases	75		

KWROUGH Roads ride has changed

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	173	40.0	49.0	49.0
NO	2	177	40.9	50.1	99.2
DONT KNOW/NOT SURE	8	3	.7	.8	100.0
	.	80	18.5	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	353	Missing cases	80		

KHWHYR On what highway have you noticed this

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
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HIGHWAY 2

2	3	.7	1.8	1.8
8	2	.5	1.2	3.0
10	6	1.4	3.6	6.5
11	1	.2	.6	7.1
12	7	1.6	4.1	11.2
13	7	1.6	4.1	15.4
14	4	.9	2.4	17.8
16	1	.2	.6	18.3
18	2	.5	1.2	19.5
20	1	.2	.6	20.1
23	5	1.2	3.0	23.1
24	1	.2	.6	23.7
25	1	.2	.6	24.3
26	1	.2	.6	24.9
27	2	.5	1.2	26.0
29	4	.9	2.4	28.4
30	1	.2	.6	29.0
31	9	2.1	5.3	34.3
32	1	.2	.6	34.9
33	1	.2	.6	35.5
35	3	.7	1.8	37.3
36	2	.5	1.2	38.5
38	1	.2	.6	39.1
41	7	1.6	4.1	43.2
42	1	.2	.6	43.8
43	2	.5	1.2	45.0
44	1	.2	.6	45.6
45	4	.9	2.4	47.9
47	1	.2	.6	48.5
48	2	.5	1.2	49.7
51	13	3.0	7.7	57.4
53	4	.9	2.4	59.8
54	3	.7	1.8	61.5
57	2	.5	1.2	62.7
58	1	.2	.6	63.3
59	3	.7	1.8	65.1
60	2	.5	1.2	66.3
63	1	.2	.6	66.9
64	1	.2	.6	67.5
65	1	.2	.6	68.0
67	1	.2	.6	68.6
70	1	.2	.6	69.2
73	2	.5	1.2	70.4
78	1	.2	.6	71.0
83	1	.2	.6	71.6
89	1	.2	.6	72.2

KWHWYR On what highway have you noticed this

91	1	.2	.6	72.8
93	1	.2	.6	73.4
94	4	.9	2.4	75.7
96	1	.2	.6	76.3
97	1	.2	.6	76.9
99	1	.2	.6	77.5
100	1	.2	.6	78.1
101	1	.2	.6	78.7

	107	5	1.2	3.0	81.7
	124	1	.2	.6	82.2
	141	2	.5	1.2	83.4
	142	1	.2	.6	84.0
	144	1	.2	.6	84.6
	151	1	.2	.6	85.2
	158	1	.2	.6	85.8
	161	2	.5	1.2	87.0
	162	1	.2	.6	87.6
	170	2	.5	1.2	88.8
	178	1	.2	.6	89.3
	182	1	.2	.6	89.9
	251	1	.2	.6	90.5
	253	1	.2	.6	91.1
DONT KNOW/NOT SURE	998	15	3.5	8.9	100.0
	.	260	60.0	Missing	
REFUSED	999	4	.9	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	169	Missing cases	264		

KWSTRET What stretch of highway

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
REPONSE	1	154	35.6	89.0	89.0
DONT KNOW/NOT SURE	8	19	4.4	11.0	100.0
	.	260	60.0	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	173	Missing cases	260		

KWROAD Way the road rides

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
ROUGH	1	64	14.8	37.0	37.0
TOLERABLE	2	107	24.7	61.8	98.8
DONT KNOW/NOT SURE	8	2	.5	1.2	100.0
	.	260	60.0	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	
Valid cases	173	Missing cases	260		

KWMORTOL More tolerant of rough ride in winter

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	129	29.8	74.6	74.6
NO	2	41	9.5	23.7	98.3
DONT KNOW/NOT SURE	8	3	.7	1.7	100.0
	.	260	60.0	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	

Valid cases 173 Missing cases 260

KWOL_1 Why tolerate rougher ride in winter

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
OTHER	0	4	.9	3.1	3.1
DIFFICULT TO MAINTAI	1	12	2.8	9.3	12.4
FREEZING WEATHER CHA	2	51	11.8	39.5	51.9
THERE IS SNOW ON THE	3	17	3.9	13.2	65.1
EXPECT IT	4	30	6.9	23.3	88.4
HAVE TO DRIVE - WORK	5	8	1.8	6.2	94.6
CAR RUNS ROUGHER	7	2	.5	1.6	96.1
DRIVE SLOWER	8	3	.7	2.3	98.4
DONT KNOW	98	2	.5	1.6	100.0
	.	304	70.2	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	

Valid cases 129 Missing cases 304

KWOL_2 Why tolerate rougher ride in winter

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
OTHER	0	1	.2	11.1	11.1
DIFFICULT TO MAINTAI	1	1	.2	11.1	22.2
FREEZING WEATHER CHA	2	1	.2	11.1	33.3
THERE IS SNOW ON THE	3	3	.7	33.3	66.7
DRIVE SLOWER	8	1	.2	11.1	77.8
DONT KNOW	98	2	.5	22.2	100.0
	.	424	97.9	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	

Valid cases 9 Missing cases 424

KWINTOL Avoid specific stretches of highway

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
YES	1	39	9.0	10.9	10.9
NO	2	317	73.2	88.5	99.4
DONT KNOW/NOT SURE	8	2	.5	.6	100.0
	.	75	17.3	Missing	
	Total	433	100.0	100.0	

Valid cases 358 Missing cases 75

KWHWYIT What highway do you avoid in winter

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	10	2	.5	5.3	5.3
	12	3	.7	7.9	13.2
	13	6	1.4	15.8	28.9
	18	2	.5	5.3	34.2
	20	1	.2	2.6	36.8
	29	1	.2	2.6	39.5
	32	1	.2	2.6	42.1
	41	3	.7	7.9	50.0
	43	2	.5	5.3	55.3
	45	1	.2	2.6	57.9
	51	2	.5	5.3	63.2
	53	1	.2	2.6	65.8
	70	1	.2	2.6	68.4
	73	1	.2	2.6	71.1
	93	1	.2	2.6	73.7
	107	1	.2	2.6	76.3
	153	1	.2	2.6	78.9
	164	1	.2	2.6	81.6
DONT KNOW/NOT SURE	998	7	1.6	18.4	100.0
	.	394	91.0	Missing	
REFUSED	999	1	.2	Missing	
	Total	433	100.0	100.0	

Valid cases 38 Missing cases 395

KWSTRETI Stretch of highway you avoid

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
-------------	-------	-----------	---------	------------------	----------------

REPONSE	1	34	7.9	87.2	87.2
DONT KNOW/NOT SURE	8	5	1.2	12.8	100.0
	.	394	91.0	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	

Valid cases 39 Missing cases 394

KWVEHIC Kind of vehicle do you NORMALLY drive

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
MINIVAN	1	40	9.2	11.2	11.2
TRUCK	3	86	19.9	24.0	35.2
CAR	4	216	49.9	60.3	95.5
OTHER	5	3	.7	.8	96.4
FULL SIZE VAN	6	7	1.6	2.0	98.3
SPORT UTILITY	7	6	1.4	1.7	100.0
	.	75	17.3	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	

Valid cases 358 Missing cases 75

KWCARSZ Size of car

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
COMPACT	1	58	13.4	26.9	26.9
MID SIZE	2	104	24.0	48.1	75.0
FULL SIZE	3	50	11.5	23.1	98.1
DONT KNOW/NOT SURE	8	4	.9	1.9	100.0
	.	217	50.1	Missing	
		-----	-----	-----	
Total		433	100.0	100.0	

Valid cases 216 Missing cases 217

KWCARRH Rate the roughness of the cars ride

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
VERY GOOD RIDE	1	92	21.2	25.8	25.8
GOOD RIDE	2	125	28.9	35.0	60.8
AVERAGE RIDE	3	116	26.8	32.5	93.3

POOR RIDE	4	20	4.6	5.6	98.9
VERY POOR RIDE	5	4	.9	1.1	100.0
	.	75	17.3	Missing	
REFUSED	9	1	.2	Missing	
		-----	-----	-----	
	Total	433	100.0	100.0	

Valid cases 357 Missing cases 76

Appendix C

VERBATIM RESPONSES

JANUARY - MARCH 1997 - WISCONSIN OPINIONS:

question 38 column(s) 11-13

on what highway have you noticed this (these) changes in ride

\\user/p3O6O/rOO/00002\059\ *\59
\\user/p3O6O/rOO/00004\035\ *\35
\\user/p3O6O/rOO/00026\013\ *\13
\\user/p3O6O/rOO/00036\031\ *\31
\\user/p3O6O/rOO/00046\035\ *\35
\\user/p3O6O/rOO/00049\031\ *\31
\\user/p3O6O/rOO/00050\016\ *\16
\\user/p3O6O/rOO/00057\998\ *\d
\\user/p3O6O/rOO/00059\010\ *\10
\\user/p3O6O/rOO/00070\053\ *\53
\\user/p3O6O/rOO/00071\998\ *\d
\\user/p3O6O/rOO/00074\023\ *\23
\\user/p3O6O/rOO/00076\012\ *\12
\\user/p3O6O/rOO/00085\060\ *\60
\\user/p3O6O/rOO/00086\051\ *\51
\\user/p3O6O/rOO/00088\100\ *\100
\\user/p3O6O/rOO/00093\253\ *\253
\\user/p3O6O/rOO/00098\010\ *\10
\\user/p3O6O/rOO/00099\012\ *\12
\\user/p3O6O/rOl/00102\036\ *\36
\\user/p3O6O/rOl/00104\023\ *\23
\\user/p3O6O/rOl/00112\998\ *\d
\\user/p3O6O/rOl/00113\014\ *\14
\\user/p3O6O/rOl/00116\998\ *\d
\\user/p3O6O/rOl/00117\020\ *\20
\\user/p3O6O/rOl/00119\030\ *\30
\\user/p3O6O/rOl/00124\170\ *\170
\\user/p3O6D/rOl/00132\013\ *\13
\\user/p3O6O/rOl/00143\043\ *\43
\\user/p3O6O/rOl/00160\097\ *\97
\\user/p3O6O/rOl/00163\144\ *\144
\\user/p3O6O/rOl/00164\089\ *\89
\\user/p3O6O/rOl/00166\038\ *\38
\\user/p3O6O/rOl/00171\032\ *\32
\\user/p3O6O/rOl/00173\070\ *\70
\\user/p3O6O/rOl/00175\101\ *\101
\\user/p3O6O/rOl/00176\041\ *\41
\\user/p3O6O/rOl/00181\162\ *\162
\\user/p3O6O/rOl/00185\051\ *\51
\\user/p3O6O/rOl/00186\998\ *\d
\\user/p3O6O/rOl/00196\059\ *\59
\\user/p3O6O/rOl/00199\094\ *\94
\\user/p3o6O/rO2/00202\043\ *\43
\\user/p3O6O/rO2/00206\060\ *\60
\\user/p3O6O/rO2/00207\094\ *\94
\\user/p3O6O/rO2/00210\048\ *\48
\\user/p3O6O/rO2/00211\073\ *\73
\\user/p3O6O/rO2/00212\012\ *\12
\\user/p3O6O/rO2/00221\012\ *\12
\\user/p3O6O/rO2/00241\094\ *\94
\\user/p3O6O/rO2/00244\051\ *\51
\\user/p3O6O/rO2/00245\998\ *\d
\\user/p3O6O/rO2/00248\091\ *\91

\user/p3O6O/rO2/00265\041\ *41
 \user/p3O6O/rO2/00266\053\ *53
 \user/p3O6O/rO2/60268\059\ *59
 \user/p3O6O/rO2/00269\094\ *94
 \user/p3O6O/rO2/00271\998\ *d
 \user/p3O6O/rO2/00274\041\ *41
 \user/p3O6O/rO2/00277\998\ *d
 \user/p3O6O/rO2/00278\024\ *24
 \user/p3O6O/rO3/00302\048\ *48
 \user/p3O6O/rO3/00305\998\ *d
 \user/p3O6O/rO3/00309\013\ *13
 \user/p3O6O/rO3/00325\023\ *23
 \user/p3O6O/rO3/00326\998\ *d
 \user/p3O6O/rOO/00003\042\ *\highway 42
 \user/p3O6O/rOO/00006\023\ *23 north of darlington \user/p3O6O/rOO/00009\999\ *1-43
 \user/p3O6O/rOO/00019\053\ *53 North
 \user/p3O6O/rOO/00052\067\ *on hw 67 near walworth \user/p3O6O/rOO/00073\012\ *\hwy 12 is
 terrible, its the worst \user/p3O6O/rOO/00075\041\ *\ hwy 41
 \user/p3O6O/rOO/00082\161\ *161, J
 \user/p3O6O/rOO/00084\014\ *14E
 \user/p3O6O/rOO/00089\057\ *\hwy 57
 \user/p3O6O/rOO/00096\045\ *\hwy 45
 \user/p3O6O/rOI/00110\998\ *c c:he hits so many he dk which it was ... <> d
 \user/p3O6O/rOI/00129\998\ *i can't think of anything] \user/p3O6O/rOI/00131\027\ *\cty Hwy o,
 Cty EE, Cty D, State Hwy 27 \user/p3O6O/rOI/00139\010\ *\hwy 10
 \user/p3O6O/rOI/00140\025\ *\hwy 25
 \user/p3O6O/rOI/00151\051\ *\hwy 51.
 \user/p3O6O/rOI/00170\083\ *\Hwy 83
 \user/p3O6O/rO2/00216\051\ *\hwy 51
 \user/p3O6O/rO2/00220\012\ *\hwy 12
 \user/p3O6O/rO2/00227\051\ *\going out of dodgeville south towards mineral point 51 south
 \user/p3O6O/rO2/00237\008\ *us 8, highway B. \user/p3O6O/rO2/00242\107\ *\stateroad 107
 \user/p3O6O/rO2/00259\013\ *\hwy 13
 \user/p3O6O/rO2/00270\031\ *\hwy 31
 \user/p3O6O/rO2/00289\064\ *64 and county trunk s and parkway road \user/p3O6O/rO2/00290\002\
 *\hwy 2
 \user/p3O6O/rO3/00300\012\ *\high 12
 \user/p3O6O/rO3/00304\013\ *\hyw 13
 \user/p3O6O/rO3/00314\041\ *\Hwy 41
 \user/p3O6O/rO3/00329\054\ *\Hwy 54
 \user/p3O6O/rOO/00037\ ... *\highway b
 \user/p3O6O/rOI/00153\ ... *\pd
 \user/p3O6O/rOI/00197\ ... *\qq
 \user/p3O6O/rO2/00235\ ... *\I94 freeway Barker Road
 \user/p3O6O/rO2/00263\ ... *\i-43, i-45
 \user/p3O6O/rO3/00312\ ... *\hwy e
 \user/p3O6O/rO3/00320\ ... *\County A and c
 \user/p3O6O/rO3/00353\029\ *29
 \user/p3O6O/rO3/00360\998\ *d
 \user/p3O6O/rO3/00362\182\ *182
 \user/p3O6O/rO3/00368\018\ *18
 \user/p3O6O/rO3/00371\044\ *44
 \user/p3O6O/rO3/00343\096\ *96 and G
 \user/p3O6O/rO3/00348\035\ *\hwy w, hwy. 35.
 \user/p3C6O/rO3/00356\011\ *\hwy 11

\user/p3O6O/rO3/00359\029\ *high 29 each other
 \user/p3O6O/rO3/QO364\031\ *31 32 and 31 run into
 \user/p3O6O/rO3/00366\251\ *business highway 251
 \user/p3O6O/rO3/00369\047\ *state #47
 \user/p3O6O/rOO/00008\051\ *53/124
 \user/p3O6O/rOO/00025\051\ *51, 10, 8, 13
 \user/p3O6O/rOO/00045\014\ *14 and 11
 \user/p3O6O/rOO/00047\054\ *54/183
 \user/p3O6O/rOO/00048\051\ *51 and 213
 \user/p3O6O/rOO/00055\999\ *Greenfield Av.
 \user/p3O6O/rOO/00063\010\ *10/57/42/47/
 \user/p3O6O/rOO/00065\029\ *29/51
 \user/p3O6O/rOO/00087\051\ *51 14 59
 \user/p3O6O/rOO/00095\158\ *158 94
 \user/p3O6O/rOI/00120\010\ *hwy 10 and hwy 41
 \user/p3O6O/rOI/00133\027\ *27 and 29
 \user/p3O6O/rOI/00134\036\ *36, 45
 \user/p3O6O/rOI/00144\141\ *hwy 141/42and 57
 \user/p3O6O/rOI/00148\029\ *29 and 12
 \user/p3O6O/rOI/00149\053\ *53, 29, 63, 8
 \user/p3O6O/rOI/00172\013\ *hwy 13, hwy 29
 \user/p3O6O/rOI/00183\058\ *58,33,26,51,21,80,90/94,10,29
 \user/p3O6O/rOI/00188\178\ *178, 124, 53
 \user/p3O6O/rO2/00201\002\ *2 and 53
 \user/p3O6O/rO2/00208\999\ *near bayshore area
 \user/p3O6O/rO2/00209\051\ *county hwy. j, hwy 51, instate 39, and hwy 153.

\user/p3O6O/rO2/00213\099\ *99/43
 \user/p3O6O/rO2/00215\078\ *78 14, 12
 \user/p3O6O/rO2/00224\161\ *161 & 10
 \user/p3O6O/rO2/00225\065\ *65 & 29
 \user/p3O6O/rO2/00228\170\ *170, Hwy M, Hwy 64
 \user/p3O6O/rO2/00234\033\ *33 and 43
 \user/p3O6O/rO2/00260\023\ *all of them, 23,43,41,67
 \user/p3O6O/rO2/00272\008\ *highway 8 and 13 and 27
 \user/p3O6O/rO2/00273\014\ *14 and 19
 \user/p3O6O/rO2/00284\ ... \ *I90
 \user/p3O6O/rO2/00291\045\ *45 & 76
 \user/p3O6O/rO3/00313\013\ *hwy13/82
 \user/p3O6O/rO3/00317\999\ *rapids trail
 \user/p3O6O/rO3/00337\051\ *Highway 51 North , Highway 13 Highway 42 in
 Door county
 \user/p3O6O/rO3/00339\041\ *41,45
 \user/p3O6O/rO3/00342\151\ *151 north or south it doesnt matter.
 \user/p3O6O/rO3/00350\010\ *anywhere from on hiwy 10 hwy 66 hwy 51 (ae) 54

\user/p3O6O/rO3/00351\031\ *31,50,94
 \user/p3O6O/rO3/00355\045\ *i 94 hwy. 45 hwy 43
 \user/p3O6O/rO3/00361\ ... \ *high I-94
 \user/p3O6O/rO3/00370\142\ *142, hwy C, Hwy 20, hwy 38
 \user/p3O6O/rO3/00373\141\ *141, hwy8 and 41
 \user/p3O6O/rO3/00374\041\ *41,45
 \user/p3O6O/rO3/00381\045\ *45
 \user/p3O6O/rO3/00386\998\ *d
 \user/p3O6O/rO3/00379\002\ *hwy 2
 \user/p3O6O/rO3/00382\073\ *hwy 73
 \user/p3O6O/rO3/00387\026\ *Highway 26, 14, 51
 \user/p3O6O/rO3/00390\057\ *hwy 57
 \user/p3O6O/rO3/00391\124\ *highway 124 between Eau claire and Chippewa Falls
 \user/p3O6O/rO3/00393\054\ *54 towards Plover

QUESTION 39 - Can you tell me on what stretch of the highway you noticed this change (these changes). That is, between what towns or crossroads is this stretch ? (change.in ride)

/00002.r\ btwn waukesha and brookfield btwn where 59 is a four lane and then becomes a 2 lane in calhoun and mooreland 164 in some spots its two lane some still pretty treacherous

/00003.r\ betw north of sturgeon bay going toward s egg harbor

/00004.r\ bet Centerville and Galesville

/00006.r\ 23 five miles north of darlington and mineral point

/00008.r\ hwy 29 around chippewa falls

/00009.r\ From Denmark down to about Port Washington

/00019.r\ d

/00025.r\ Mercer to Hurley

/00026.r\ adams-friendship to wis rapids

/00036.r\ d

/00037.r\ d

/00045.r\ delavane and Janesville

/00046.r\ north of de soto

/00047.r\ rapids and nakoosa

/00048.r\ beloit and jansvell

/00049.r\ after kenosha cty going north

/00050.r\ west between sparta and bangor

/00052.r\ in the town of walworth and montana

/00055.r\ Between West Allis and Brookfield

/00057.r\ southwest of Milwaukee

/00059.r\ betw Waupaca & Fremont

/00063.r\ c c: on the new stretches, it wasn't so bad as on the older parts. <> d

/00065.r\ btwn mosinee and scofield

/00070.r\ from cameron to new auburn and past.bloomer to eau claire

/00071.r\ Teressa

/00073.r\ madison to Cambridge

/00074.r\ between dodgeville and spring green

/00075.r\ Deperre and appleton

/00076.r\ sauk and baraboo

/00082.r\ Moiseene and elderon

/00084.r\ Gothan - Spring Green

/00085.r\ btn Arlington and Lodi

/00086.r\ wassau and stevens point

/00087.r\ edgertin and deerfield, edgerton arid Janesville

/00088.r\ Hills Corners and W. Allis

/00089.r\ south of greenbay to de pere

/00093.r\ Spooner to Serona

/00095.r\ kenosha and racine

/00096.r\ b/w hwy 41 and west bend

/00098.r\ Marshfield & auburndale junction city for 10 miles b4 getting to stevens
pt

/00099.r\ Middleton to Sauk City

/00102.r\ between Waterford and burligton

/00104.r\ Fond du Lac - Rosendale

/00110.r\ d

/00112.r\ dk

/00113.r\ between mazell and arena

/00116.r\ d

/00117.r\ between when Hwy 20-goes into 83

/00119.r\ Sprecher and Reiner roads in that vicinity

/00120.r\ hwy 10-between hwy45 and 41 hwy 41-around the 00 and 41 interchange

/00124.r\ Downing and Boyceville

/00129.r\ town of kewaskurn around the town highway 28 going in and out of the
t

own

/00131.r\ whole township of Goetz

/00132.r\ - /00132.r\ melon wi, going north highw 13

/00133.r\ 27--between Cadott to Ladysmith 29--between chippewa falls to colfax /00134.r\ betw franklin and mke.

/00139.r\ between midway rd and oneida st

/00140.r\ between nelson and durand

/00143.r\ between sheyboygan and mke

/00144.r\ sturgeon bay to brussels

/00148.r\ between menominee and Eau Claire

/00149.r\ from rice lake to trego

/00151.r\ somewhere between rio and columbus

/00153.r\ 151 and Fish Catchery

/00160.r\ stratford to athens

/00163.r\ d

/00164.r\ fort etkinson and lake mills

/00166.r\ don't know

/00170.r\ North Lake Hwy 16

/00171.r\ Port Washington to Grafton

/00172.r\ Marshfield and Abotsford , Abotsford and Myland

/00173.r\ Minoqua to Fifield

/00175.r\ armstrong to hwy 70

/00176.r\ black howard to de pere

/00181.r\ melrose and burr oak

/00183.r\ 58/80 between neenah mauston, hhl2 dells and bababoo, 58
mauston-lavelle
33levell-reedburg,

/00185.r\ south of minocqua

/00186.r\ betw Calumet and Outagamie

/00188.r\ Chippewa Falls to Cornell and Chippewa Falls to Eau Claire.

/00196.r\ d

/00197.r\ between waupaca and king

/00199.r\ waukesha to Milwaukee

/00201.r\ d

/00202.r\ Velt and Suamico

/00206.r\ between arlington and 1-90

/00207.r\ between west alias and Milwaukee to waukesha and going into
milwaukee
on the same highway

/00208.r\ brown deer to inner city

/00209.r\ stevens point to wausa hatley to mozinee mozinee to wausa hatley to
wausau

/00210.r\ Cumberlin-Rice Lake

/00211.r\ Manchester to Princeton

/00212.r\ between fortton Cambridge and Cambridge and madison

/00213.r\ 43-in btwn good hope rd and mecwan rd, 99- btnw hw 83 and hwy e

/00215.r\ Sauk City-Madison S City - Merrimac

/00216.r\ d

/00220.r\ Basically WI Dells to Baraboo.

/00221.r\ from Middleton to sauk city

/00224.r\ 161 near Iola, and 10 nearest Steven's Point

/00225.r\ 65--between River Falls Beldenville; 29-between 63 and Spring Valley

/00227.r\ the first half mile going out of Dogdeville

/00228.r\ between Colfax and wheeler

/00234.r\ in west bend its past the airport going east on 33 43 is going south towards Milwaukee almost into
Milwaukee the ride seems worse evverytime I go.

/00235.r\ Brookfield for Barker Road 194 Waukasha to Milwaukee

/00237.r\ st croix fall to turtle lake.

/00241.r\ west bou nd by Brookfield between Moorland and Hwy 16 exit

/00242.r\ 107 bn marathon city and little chicago, staterd 64 bn junction 107 and
county hwy m, also hwy K north of wausau

/00244.r\ betw the airport & Windsor

/00245.r\ d

/00248.r\ from oshkosh west to about 5 miles.

/00259.r\ around medford area, both directions

/00260.r\ Sheboygan, dodge , i get all over.

/00263.r\ mostly around Milwaukee

/00265.r\ Around appleton from Neenah-Menasha to Little Chute

/00266.r\ Independence and White Hull

/00268.r\ Waukeshau 164

/00269.r\ brookfield to kenosha

/00270.r\ bet milw and racine

/00271.r\ d

/00272.r\ 27-from ceoudray to hayward 8-from prentice to hawkins 13-glidden
\down
to phillips

/00273.r\ madison and sun prairie on 19 and Janesville and delavan on 14

/00274.r\ by Milwaukee -194

/00277.r\ Pearson, around the area

/00278.r\ Hales corners, new berlin stretch 164 1-43 and Big Bned

/00284.r\ prob between highway 30 and 12 and 19 on 190

/00289.r\ d

/00290.r\ east of superior toward ashland

/00291.r\ Btwn Greenville and New London on Hwy 45 Btwn Appleton and Greenville
on hwy 76

/00300.r\ betw lodi and Middleton

/00302.r\ rice lake and birchwood

/00304.r\ between madison and wi rapids

/00305.r\ d

/00309.r\ wasburn and ashland

/00312.r\ between horicon and beaver dam

/00313.r\ btwen county trunk A and adams frienship

/00314.r\ Between Oconto and Marinette

/00317.r\ rapids trail, hwy d 15th St

/00320.r\ Between 20 and U.S 45

/00325.r\ d

/00326.r\ madison & sun prairie

/00329.r\ from Hwy 35 to Hwy 71 or 27 (r not sure)

/00337.r\ Hiway 42 between Egg Harbor and Sister Bay Highway 51 Meril to
Hurly
highway 13 13t8 north to Ashland

/00339.r\ between Jackson and West Bend

/00342.r\ mineral pt and dodgeville north. mineral pt and plattville South.

/00343.r\ half a mile north of Lark and runs two miles

/00348.r\ between hudson and richmond. between hudson and houlton

/00350.r\ i'm talking anywhere between clover and wausau, wisc rapids and
plover,
stevens point and rothshild (ae) that sb good

/00351.r\ kenosha and racine, or milw and chicgo, kenosha and milw

/00353.r\ cippewa falls and menominee,anyhere in scawano county

/00355.r\ 45 --- mil. airport to 7 mile rd.

/00356.r\ monro ans broadhead-

/00359.r\ betw chippewa falls and menominee

/00360.r\ betw Milwaukee and germantown that area, out of Milwaukee

/00361.r\ around pewaukee

/00362.r\ betw Park Falls & Springstead

/00364.r\ Racine to Milwaukee

/00366.r\ between rothchild and scofield

/00368.r\ lake mills and fort atkinson

/00369.r\ betw pelican lake and antigo

/00370.r\ rt 38 north of Racine co line, rt 20 w of interstate, route c west of
the interstate.

/00371.r\ pardeeville and dalton

/00373.r\ 141 usually btwn beecher and penbine, 8 form penbine towrds dunbar goodman
area. hwy 41, various spots, like down towards btwn pestigo and ocono

/00374.r\ between Milwaukee and west bend

/00379.r\ from ashland to superior

/00381.r\ between new london and marion

/00382.r\ betw nequosa and hwy 13

/00386.r\ sumerset and richmond

/00387.r\ Milton to Beloit Hospital

/00390.r\ dyksville until sturgeon bay

/00391.r\ Between eau claire aND chippewa falls, the town of Hallie.

/00392.r\ wausau and brokaw

/00393.r\ from Rapids to Plover.

/00394.r\ 35 holman to fountain city/93 Centerville to oclair

/00395.r\ west of dodgeville

/00396.r\ hayword and hwy2

/00400.r\ driving through upper kettle moraine area, dont know the name of
road

QUESTION 41A - Please give me a reason why you would tolerate a rougher ride in winter?

/00002.r\ road conditions anyway you tolerate rd conditions that aren't that good oh it'll be fixed in spring time, you have to be more cautious driver in, the winter anyway

/00003.r\ more clothes on, just expect things to be more rougher in winter, have]
tougher attitude in winter

/00006.r\ the waywinter is the earth moves

/00008.r\ going to work

/00026.r\ bc i expect it bc of icy conditions

/00036.r\ the conditions (ms) the weather everything is woprse in winter

/00037.r\ bc in winter tires and spring are hard and dont have as much give
/00045.r\ roads suffer damage in winter

/00046.r\ you know where you're at when there's snow on the ground

/00047.r\ yes because i know about the fact of snow on the ground that doesn't help any.

/00050.r\ think about the weather anyways, salt and sand

/00052.r\ because of the plowing of the road

/00055.r\ it's to be expected

/00059.r\ understanding theres nothing anybody can do about the frost

/00063.r\ because it's inevitable, whenever you have ground frost ... it's just part
of living up here.

/00065.r\ because of the weather and how hard it is to maintian

/00070.r\ kind of used to it, every winter it gets like this"

/00074.r\ i understand that roads crews cannot get out there to fix it

/00076.r\ because we have to expect it due to weather. i just accept it

/00082.r\ after winter strightens out

/00084.r\ knowing taht the grOUNg heaves are something that you live with

/00085.r\ assume the freezing road changes

/00086.r\ it's hard to fix the rds in winter

/00087.r\ cause of the stuff freezing on the road

/00089.r\ the freezing conditions of the ground there's not alot they could do
about it, they can't do the repairs in winter

/00093.r\ I understand that it's difficult for them to keep it up.

/00095.r\ conditions don't warrent fixingin the winter

/00096.r\ b/c weather and conditions, snow conditions

/00098.r\ bc i have to get to my classes at the university

/00099.r\ I know what happens with water freezing up in the cracks and heaving up
Nothing you can do about that until it thaws

/00102.r\ bc I know I can't change it

/00110.r\ i guess it's nmore expected, b/c of the ocndition or whatever (what conditions?)

well, you say disregard ice and snow, but when it's on there it actulaly does smooth it up, b/c it doesn't get out of all the crevices and stuff. so you do
feel like it's a littl ebetter. summertime, it's worse.

/00112.r\ yes, bc i know i have to bc there is nothing i can do at this time except
to write to the highway commissioner but he already knows this.

/00113.r\ well its b/c of the frost it humps the roads up (humps? what did you say?) it heaves the roads up. that's why youhave your rough roads in the winte
rtime.

/00124.r\ Just because the vehicle rides rougher when cold than when ward

/00129.r\ because you always know the roads will be rougher in the winter due to
salt and expansion/contraction

/00133.r\ You have to make allowances for the weather, snow etc. you know the roads can't be the same in winter as in summer

/00134.r\ just used to it i guess.

/00139.r\ no other road to use, have to use it

/00140.r\ i guess i don't use that often / in the winter? it is the road my mother
lives on

/00143.r\ i just change lanes

/00151.r\ well bc of the frost and the ground and stuff and that's what makes the road rough - when their cuiver running underneath

/00153.r\ because of the frost in the ground, it is frozen!

/00160.r\ expect it, understand why it is

/00163.r\ have to because it happens with freezes and thaws

/00164.r\ i expect freezing and roughness at winter

/00166.r\ bc of the weather is usually, "you kind expect the worse."

/00170.r\ Less chance of road being icy,,rougher and not as smooth

/00171.r\ Bc I understand why it happens

/00172.r\ the ground does heave in this part of the country

/00173.r\ Just because you get used to more bumps and rougher ride in winter

/00176.r\ can understand the effects of freezing, causes swelling,

/00181.r\ hard for them to work on the roads when it's winter

/00186.r\ in winter they just go to hell

/00188.r\ Because this is Wisconsin, and the climate dictates heaving, expansion
buckling.

/00196.r\ Living here forever, you expect it

/00197.r\ because your vehicle is colder and you're bound to have a harder ride
anyway

/00199.r\ no other way that i can take so you have to deal with it

/00201.r\ well, because with the snow plowing the material is removed from the joints of the road.

/00206.r\ cuz if you want to use the road it's going to be rough in wi.

/00207.r\ they cant be out there fixing it and really the holes are a result of the snow plows unlike the summer.

/00210.r\ bc we know it will take till Spring to get things fixed

/00211.r\ cuz it's also deer country - the deer are out there so you have to be very cautious (r to explain). bc its dark out, there's more daylight hours in the summer - you can see more.

/00213.r\ i realized there's nothing they can do in the winter like fix it or

any
thing

/00215.r\ car suspension is stiffer

/00220.r\ The snow and ice build up

/00221.r\ i guess just bc you know that it's probably some heaving from
thawing
and what not. i comes with the territory i guess.

/00224.r\ I understand that with weather conditions there can be heaving and
with
the freezing

/00225.r\ bc you know the weather heaves the road (ae) no (wa) bc you k there
is'not much more U can do about it in winter so ur more tolerant

/00228.r\ cause its always rough with all the snow and everything, not as rough in the summer

/00235.r\ harder to fix and it's something that happens. The materials would fr
eeze

/00237.r\ bc a person drives slower in the winter time

/00242.r\ bc i expect it to be this way

/00244.r\ the freezing has something to do with raising the pavement & that

/00245.r\ bc of changing weather conditions; i understand that damage occurs

/00248.r\ the roda heave more from frotst

/00259.r\ b/c you know the roads are going to break up in the winter

/00260.r\ bc i know the frost is in the grounds and it makes the road rougher.

/00263.r\ Because i'm used to it

/00266.r\ It's kind of natural for roads to do that in cold weather.

/00268.r\ I just don't care about the potholes, I can handle it.

/00269.r\ its harder for them.to control the atmosphere in winter than in
summe
r

/00271.r\ i expect it in winter, the ground gets cold.

/00272.r\ frost and potholes

/00273.r\ it's winter! you know, that's life, you know, it's --winter kind
of

/00148.r\ becuz of snow and ice problems this winter/ radical temp change this winter

beats up the roads a little bit. normal wear and tear.

/00274.r\ because i don't have a choice, there's nothing i can do.

/00277.r\ Because I know of the ground thawing and snow plowing on these roads

/00278.r\ can't do anything about it, lots of moneyt to do it right

/00289.r\ because it's just the season

/00290.r\ can't control the breakup because of the p oor soil beneath the paveme
nt

/00300.r\ expect it, because its winter]

/00302.r\ there's snow and cold, driving conditions are bad anyways

/00304.r\ expect rougher ride in winter

/00305.r\ winter

/00309.r\ becausee i know the ice throws up the road

/00312.r\ just because you have to put up with it b/c it is winter and we live
in Wisconsin

/00313.r\ come expect it becuz of weather conditions

/00317.r\ have no choice

/00320.r\ Caus of the salt which causes cracks in the pavement.

/00325.r\ speeds are slower and its not going to last

/00326.r\d

/00337.r\ I understand the ellement of the cold air and the roads.

/00339.r\ of the road conditions, when it freezes and if the area is swampy, I
can understand why the roads ajust.

/00348.r\ typically is just rougher in the winter, heaving of pavement and
snow
and ice.

/00350.r\ i guess it just is common sense b/c of the frost, the weather the
temp's
and usinga lot of salt and everything else on the hwy toclear it i'm sure
it's
eating up some of the potholes more, well i dk if that would be it

/00351.r\ because i know its tuffer to repair roads in winter

/00356.r\ because of the season normally rougher

/00359.r\ theres more snow on it

/00360.r\ bc you expect it because of winter

/00362.r\ cause i'm driving slower

/00364.r\ Under the circumstances--we can't control the weather (ae) & I don't
travel as (ae) much in winter

/00366.r\ bacause i understand that is when the potholes are worse so i guess
i
take that into consideration.

/00368.r\ the weather conditions when the weather hgets cold out it affects
the
pavement

/00369.r\ bc in winter its also bad bc of other reasons like snow and ice.

/00371.r\ just goes to living in wi find these areas in wi wa living in wi
nothing
you can do about it

/00373.r\ bc it is aseasonal thing, they settle down again in spring

/00374.r\ they can'tr do as much work on the roads in winter and i assume
that
thawing and freezintg mifhgt cause these problems

/00381.r\ because if it is rough, there is snow, and you have to take your
time
anyway

/00382.r\ bc of the freezing of water in ;winter

/00386.r\ because in the winter everything is crappy including the roads

/00387.r\ I don't have a choice.

/00391.r\ because of the conditions, bec of frost and heating, the thaws that
cause
some damage to the road

/00392.r\ bcI expect it bc ofg the frost can't be properly maintained

/00393.r\ d

/00394.r\ bc noraml smoothes out in jthe spring of year

/00353.r\ because of the plows, that is a reason why it is more rough.

What highway do you avoid in winter because of an intolerable ride ?

\user/p3O6O/rOO/00010\998\ *d
 \user/p3O6O/rOO/00039\073\ *73
 \user/p3O6O/rOO/00051\041\ *41
 \user/p3O6O/rOO/00059\010\ *\10
 \user/p3O6O/rOO/00080\998\ *d
 \user/p3O6O/rOO/00082\153\ *\153
 \user/p3O6O/rOO/00099\012\ *\12
 \user/p3O6O/rOI/00103\998\ *d
 \user/p3O6O/rOI/00126\998\ *d
 \user/p3O6O/rOI/00127\998\ *d
 \user/p3O6O/rOI/00147\998\ *d
 \user/p3O6O/rOI/00157\013\ *\13
 \user/p3O6O/rOI/00174\441\ *\441
 \user/p3O6O/rOI/00198\164\ *\164
 \user/p3O6O/rO2/00202\043\ *\43
 \user/p3O6O/rO2/00224\010\ *\10
 \user/p3O6O/rO2/00250\998\ *d
 \user/p3O6O/rO3/00309\013\ *\13
 \user/p3O6O/rO3/00336\018\ *\18
 \user/p3O6O/rOO/00073\012\ *hwy 12
 \user/p3O6O/rOI/00149\053\ *\#53
 \user/p3O6O/rOI/00168\045\ *\hwy 45
 \user/p3O6O/rOI/00171\032\ *\32 grafton to port Washington
 \user/p3O6O/rOI/00185\051\ *\51 south of minoquoa
 \user/p3O6O/rO2/00209\051\ *\hwy 51 from moinee to wausau
 \user/p3O6O/rO2/00230\041\ *\Hwy 41
 \user/p3O6O/rO2/00237\012\ *i cant remember but i think it was old 12. highway 12, it was rougher than
 heck.
 \user/p3O6O/rO3/00351\998\ *d
 \user/p3O6O/rO3/00361\018\ *\highway 18
 \user/p3O6O/rO3/00370\043\ *\hwy 43 betewwn rt 12 & 90
 \user/p3O6O/rOO/00026\ ... \ *\gravel roads in the winter
 \user/p3O6O/rOO/00044\ ... \ *\90/94
 \user/p3O6O/rOI/00150\ ... \ *\no state highways
 \user/p3O6O/rOI/00169\ ... \ *\there isn't any I know of offhand. \user/p3O6O/rO2/00208\...\ *inner
 city ans brown deer \user/p3O6O/rO2/00216\ ... \ *\hwy x
 \user/p3O6O/rO2/00283\ ... \ *\Locust Street \user/p3O6O/rO3/00343\999\ *\W
 \user/p3O6O/rO3/00353\029\ *\29 \ 44 west of chippewa falls where it meets with 94
 \user/p3O6O/rO3/00392\107\ *\107
 \user/p3O6O/rO3/00397\020\ *\20
 \user/p3O6O/rO3/00391\070\ *\Highway 70 between Winter and Fifeield.
 \user/p3O6O/rO3/00394\093\ *\93v to oclair

\\user/p3O6O/rO3/00394\093\ *\hwy93/35/
\\user/p3O6O/rO3/00395\018\ *\18,151
\\user/p3O6O/rO3/00396\063\ *\hwy 63
\\user/p3O6O/rO4/00400\998\ *\d
\\user/p3O6O/rO3/00392\051\ *\US 51

QUESTION 44 - Can you tell me which stretch of the highway you avoid? That is, between what towns or crossroads is this stretch ?

/00010.r\ d

/00026.r\ na

/00039.r\ between 33 and hwy16

/00044.r\ betw windsor and madison

/00051.r\ osh and appleton

/00059.r\ betw. Wupaca to Appleton

/00073.r\ madison to Cambridge

/00080.r\ d

/00082.r\ between J and Moisnee

/00099.r\ Middleton Saiuk Prairie

/00103.r\ hwy 22 from wyocena to where it connects with hwy 51

/00126.r\ wanakee ans madison

/00127.r\ d

/00147.r\ near prairie farm, in that area

/00149.r\ north of rice lake

/00150.r\ d

/00157.r\ Dells to Wis Rapids and Madison to the Dells

/00168.r\ between west bend and hwy 41

/00169.r\ (isn't one right?) no , not that I know

/00171.r\ grafton port Washington

/00174.r\ the whole miles

/00185.r\ south of minoqoua

/00198.r\ wakesha 164 and mor6land

/00202.r\ velt and suamico

/00208.r\ hwy 94 between inner city and brown deer

/00209.r\ mosinee to wausau

/00216.r\ weston rd. (in weston) to end of XX.

/00224.r\ In Steven's Point

/00230.r\ South Oshkosh, between Hwy 110 and Hwy 21

/00237.r\ baldwin'cross roads

/002506r\ d

/00283.r\ between the East side to Sherman Ave

/00309.r\ washburn and ashland

/00336.r\ hwy 83 and why67

/00343.r\ Morrison to Depere

/00351.r\ d

/00361.r\ betw dowsman and waukeshaw

/00370.r\ 43 between rt 12 and 190

/00391.r\ nine mile stretch between winter and oxford, five miles west of winter
and extends to oxbold.

/00392.r\ btwn Hiway 153 and 64

/00394.r\ 93 from Centerville to oclair

/00397.r\ in racine

Appendix D

SPECIFIC STRETCHES OF HIGHWAY IDENTIFIED BY 6 OR MORE DRIVERS IN RESPONSE TO QUESTION 39

WISCONSIN
Sections With Poor Ride Noticed Most Frequently

Highway	Frequency	Participant #	From	To
10	6	59	Waupaca	Fremont
		98	Marshfield & Auburndale Junction 10 mi before Stevens Point	
		139	Midway Road and Oneida St	
		63	at HW C (new stretches)	
		120	Hwy 10 between 45 and 41	
		350	Clover & Wausau, WI Rapids & Plover, Stevens Point & Rothschild	
12	7	99	Middleton	Sauk City
		212	Forton	Cambridge & Cambridge & Madison
		221	Middleton	Sauk City
		220	Wisconsin Dells	Baraboo
		73	Madison	Cambridge
		76	Sauk	Baraboo
		300	Lodi	Middleton
13	7	26	Adams	Friendship to Wisconsin Rapids
		132	Melon	Going north HW 13
		259	Around Medford area, both direction	
		304	Madison	Wisconsin Rapids
		172	Marshfield-Abbottsford, Abbottsford-Myland	
		309	Washburn	Ashland
		313	CTH A	Adams Friendship
31	9	36	(missing)	
		49	North after Kenosha City	
		270	Milwaukee	Racine
		364	Racine	Milwaukee
		351	Kenosha Racine, Milw-Chic, Kenosha, Milw	

41	7	176	Black Howard to De Pere	
		265	Around Appleton fr Neenan-Menasha to Little Chute	
		274	Milwaukee	I-94
		75	DePere and Appleton	
		314	Oconto	Marinette
		339	Jackson	West Bend
		374	Milwaukee	West Bend
51	13	86	Wausau	Stevens Point
		185	South of Minocqua	
		227	1 st half mi out of Dodgeville	
		244	Airport	Windsor
		151	Somewhere between Rio and Columbus	
		8	HW 29 around Chippewa Falls	
		261	(missing)	
		25	Mercer	Hurley
		48	Beloit	Janesville
		87	Edgerton-Deerfield, Edgerton-Janesville	
		209	Stevens Point-Wausau, Hatley	
			Mosinee-Wausau Hatley-Wausau Hatley to Wausau	
		337	Merrill	Hurley
		392	Wausau	Brokaw